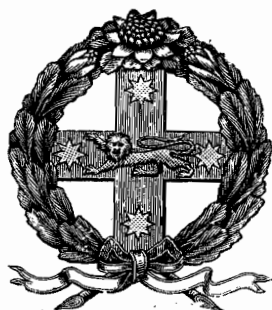


THE
OFFICIAL YEAR BOOK
OF
NEW SOUTH WALES.
1911.



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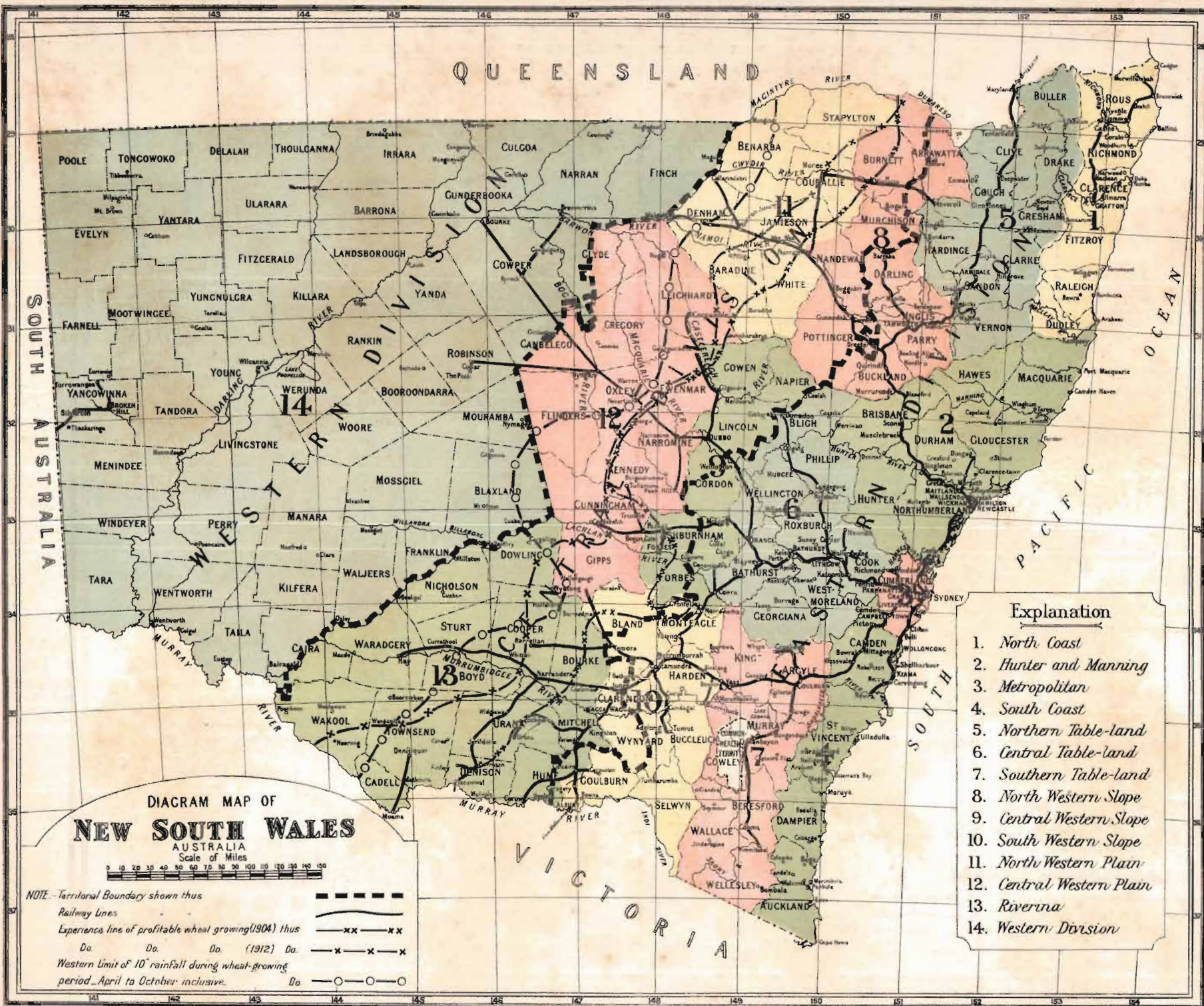
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PREFACE.

THE practice of publishing the various Chapters of the Year Book in separate Parts was continued last year, and the eighteen sections of the "Official Year Book of New South Wales, 1911," have appeared already in print.

It is to be regretted that, through unavoidable causes at the Government Printing Office, the publication, both of the parts and of the complete work, has been delayed.

The general arrangement of previous years has been retained, but the whole of the matter has been revised and much re-written. Additional information has been included in many cases, and every care has been taken to ensure that the publication is reliable. Information received after the various chapters were sent to press is contained in the Appendix.

The Census of the Commonwealth of Australia was taken on 2nd April, 1911, and various results relating to New South Wales are included within.

The "Statistical Register of New South Wales," which is compiled in this Bureau, is published annually, and contains statistics in greater detail than could be shown in the Year Book.

In the "New South Wales Monthly Statistical Bulletin," which also issues from this Bureau, may be found the latest available official statistics upon all subjects of general interest relating to the State of New South Wales.

Bureau of Statistics,
Sydney, 1st April, 1912.

JOHN B. TRIVETT,
Government Statistician.

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CHRONOLOGICAL TABLE

OF

Events in the History of British Settlement in New South Wales (Australia).

- 1770 Captain Cook landed at Botany Bay, 28th April, 1770.
- 1774 Discovery of Norfolk Island by Captain Cook.
- 1788 "First Fleet" arrived in Botany Bay, 18th-20th January; formal possession taken of Sydney Cove, Port Jackson, 26th January; number of persons debarked, 1,035—Divine Service performed by Rev. Richard Johnson, Chaplain of the Colony, 27th January—Governor Phillip formally proclaimed the Colony, 7th February—Norfolk Island established as a dependency—La Perouse visited Botany Bay—Earthquake shocks—Lord Howe Island discovered by Lieutenant Ball—First settlement at Rose Hill (afterwards Parramatta)—Observatory established at Dawes' Point—First Criminal Court—First cultivation of Wheat and Barley—Settlers asked for by Governor Phillip—Pittwater, Brisbane Water, Hawkesbury River discovered.
- 1789 Hawkesbury River explored—First harvest reaped at Parramatta—Hurricane at Norfolk Island—Disease (small-pox) among aborigines—Nepean River discovered—First colonial-built boat, "Rose Hill Packet," launched.
- 1790 Second Fleet arrived with New South Wales Corps, Lieutenant John Macarthur (Founder of sheep-breeding in Australia)—"Sirius," lost at Norfolk Island—First brick store erected—Scarcity of provisions—Signal Station established at South Head—Population of Colony, 1,713; of Norfolk Island, 524.
- 1791 Lieut.-Governor King brought Territorial Seal and Royal Authority to grant pardons—Parramatta (formerly Rose Hill) named—First store at Parramatta—Settlements at Prospect Hill and The Ponds—Third Fleet arrived—Corps of Marines relieved by New South Wales Corps—Whaling and sealing first colonial industry—Land first granted to settlers.
- 1792 Governor Phillip resigned—First Foreign Trading Vessel "Philadelphia" arrived—Population of Colony, 3,077.
- 1792-5 Military administration by Major Grose and Captain Paterson pending appointment of Governor.
- 1793 First free immigrants arrived in the "Bellona" and settled at Liberty Plains, but afterwards migrated to Hawkesbury River—Exploration of Blue Mountains attempted—First surplus of 1,200 bushels maize sold by settlers to Government at 5s. per bushel—First place of public worship built in Sydney.
- 1794 Hawkesbury River settlements—Lieut.-Governor Grose left for England.
- 1795 Floods at Hawkesbury River agricultural settlements—Governor Hunter arrived—First printing press erected—Strayed cattle found at Cow Pastures—Serious damage to cultivation by hailstorms—First important civil action at law.
- 1796 Port Hacking explored by Bass and Flinders—Duck River Bridge built—First theatre opened—Bass tried to cross Blue Mountains—Coal found at Port Stephens—Population of Colony, 4,016—First school opened at Parramatta.
- 1797 Coal discovered at Illawarra and Coal (Hunter) River—Bass discovered Twofold Bay, Bass Strait, Western Port, &c.—Merino sheep brought from Cape of Good Hope—Tuggerah Lakes discovered—Granary at Sydney completed—Conflict with blacks at Parramatta.

- 1798 Town Clock set up—First Church (Rev. Richard Johnson's) burned down—Severe hailstorms—Insularity of Van Diemen's Land (Tasmania) established by Bass and Flinders—First drought recorded—Churches founded, St. John's, Parramatta, and St. Phillip's, Sydney.
- 1799 Bass and Flinders returned from Van Diemen's Land—Flinders explored North Coast—Wilson reached Lachlan River—Hawkesbury floods—Two whaling ships arrived in Port Jackson with a Spanish prize vessel which they had captured off coast of Peru—Population of Colony, 5,100.
- 1800 Governor Hunter recalled; superseded by Governor King—First Coal exported—Customs House established—Import duties first levied—The first Volunteer Force for defence raised at Sydney—Population of Colony, 4,958.
- 1801 First issue of Copper Coin—Hunter River coal mines worked.
- 1802 Port Phillip discovered—First book (General Standing Orders) printed in Sydney.
- 1803 First Wool taken to England by Macarthur—Caley attempted to cross Blue Mountains—Battery at George's Head completed—First Roman Catholic services, Rev. W. Dixon, celebrant—First newspaper (*Sydney Gazette and New South Wales Advertiser*) published in Sydney—First settlement established in Van Diemen's Land—New South Wales Corps reduced to peace footing—Yarra River discovered.
- 1804 Newcastle settlement—"George III flock of merinos" arrived—Dutch merchant ship "Swift" taken prize by English whaler "Policy" in Malay Archipelago and brought to Sydney.
- 1805 Macarthur began sheep farming at Camden with imported Spanish Merinos—Population of Colony, 8,542.
- 1806 Governor Bligh arrived—"March Floods" on Hawkesbury and South Creek—Famine; Wheat 80s. bushel.
- 1807 Evacuation of Norfolk Island contemplated—Rum currency forbidden—First parcel of wool (245 lbs.) exported to England.
- 1808 Macarthur's trial—Bligh's deposition—Major Johnston assumed Government.
- 1809 Governor Macquarie arrived—Free school established—Street Regulations—George-street, Charlotte Square, Macquarie Place, and Hyde Park named—First Post Office under Isaac Nichols.
- 1810 First Horse Races—Sydney streets re-named and organised—Toll-gates erected—Police Fund established—Windsor (formerly Green Hills) and Liverpool named—New South Wales Corps left for England—Market regulations issued.
- 1811 Public Pounds established—Lieut.-Col. Johnston court-martialled and cashiered—Sydney Hospital foundation laid—Tank Stream bridge enlarged—Sydney Common land designated—Burial grounds consecrated—Illicit distillation prevalent.
- 1812 Creation of Governor's Court and Supreme Court—Sunday closing of shops—First crop of hops gathered—Select Committee of House of Commons appointed to inquire into condition of New South Wales—Great scarcity of coin, private money, orders, or promissory notes allowed to be issued—Population of Colony, 10,523.
- 1813 Blaxland, Lawson, and Wentworth crossed Blue Mountains—Deputy-Surveyor Evans discovered Bathurst Plains and Lachlan River—Foundation stone laid, Sydney Lighthouse—Botanic Gardens commenced—"Holey Dollar" and "Dump" issued for local currency—Watermen appointed to ply in Sydney Cove—Public vehicles ordered to be numbered and named.
- 1814 Charter of Justice published—Civil Courts created—Hume explored Berrima and Goulburn Districts—First Judge (J. H. Bent) arrived and was recalled—New road to Liverpool opened—Committee formed to promote civilisation of Aborigines—Institution for Aboriginal children opened at Parramatta—Naval stores erected at Circular Quay.
- 1815 Lapstone Hill and Mount Victoria Road to Bathurst completed—Bathurst laid out by Governor Macquarie—First Wesleyan Minister arrived—First steam engine in Sydney—First sitting of Supreme Court—Grounds allotted to sixteen aboriginal families at George's Head.
- 1816 Conferences instituted with aboriginals—Allen Cunningham and Judge Advocate Wyldé arrived—Sydney Hospital opened.

- 1817 Oxley's first journey inland—Meehan and Hume discovered Lakes George and Bathurst, and Goulburn Plains—Bank of New South Wales established—Captain King's coastal explorations—Hyde Park Barracks built—New Territorial Seal.
- 1818 Oxley's second journey to the Macquarie; discovered Hastings and Manning Rivers—Free immigration stopped—Great Western Road completed to Emu Ford—Benevolent Society established—Rose Hill packet boat service instituted.
- 1819 Commissioner Bigge's inquiry into laws and administration of Colony—St. James' Church commenced—Savings Bank opened at Sydney—County of Westmoreland designated—The Governor given power to impose Customs duties on spirits, tobacco, &c.
- 1820 Murrumbidgee River discovered—Russian exploration ships arrived—Clyde River discovered—Burial ground (Town Hall) closed—Sir Joseph Banks died—Campbelltown laid out—Hunter River Floods—Grape-vines introduced—Government row-guard boats established—Influenza epidemic—W. C. Wentworth published in England an account of Australia.
- 1821 Governor Sir Thos. Brisbane arrived—Ten ships despatched with Australian produce for England—Foundation stone of St. Mary's (R.C.) Cathedral—Philosophical (now Royal) Society founded—Throsby tour of discovery inland—Settlement formed at Port Macquarie.
- 1822 Agricultural Society established—First Colonial Attorney admitted—Bees introduced—St. James' Church opened—Sale of Australian tobacco—Road from Richmond to Wallis Plains (Newcastle) opened—Settlement formed at Wellington Valley—Parramatta Observatory erected.
- 1823 First Australian Legislature granted: a Council to consist of from five to seven persons, with limited legislative power—Cunningham's explorations—Dr. Lang arrived—Oxley discovered Tweed and Brisbane Rivers—Free settlers encouraged—Squatting commenced—"Particles of gold" found at Fish River, near Bathurst, by Assistant Surveyor McBrien—Monaro Plains discovered.
- 1824 Freedom of Press assured—First Criminal Sessions with trial by jury—First Land regulations—Hume and Hovell explored South—Charter of Justice proclaimed—First Executive Councillors appointed—First meeting of Australian Legislature—Currency Act; first Act of Parliament in Australia—Sugar-cane grown on Hastings River—Australian Agricultural Company formed—Moreton Bay founded—New Supreme Court of Criminal Jurisdiction established—Settlement at Melville Island—Bills of Exchange and Promissory Notes payable in dollars legalised—Court of Requests commenced—First Court of Quarter Sessions.
- 1825 Governor Darling arrived—Sydney Chamber of Commerce established—Van Diemen's Land separated from New South Wales—Dr. Halloran's Grammar School—Drought which lasted three years—Liquor licenses granted—Bushrangers at Bathurst—Attempt to colonise New Zealand from Sydney—LaPérouse monument placed at Botany Bay—First Mounted Police.
- 1826 River Darling discovered—Cunningham's explorations—Church and School Corporation formed—Bank of Australia established—Australian Subscription Library founded—Illawarra settlement—Land Board appointed—Orphan School Estates vested in trustees of Church and School Lands—Darling Mills at Parramatta opened—Dollar system of currency abolished—Influenza prevalent—Commercial panic caused by extensive operations of Australian Agricultural Company—"Warspite," first line of battleship to enter Port Jackson, arrived—Rumker gazetted first Government Astro-nomer.
- 1827 Colony self-supporting—Heavy Land and Stock speculations—*Sydney Gazette*, the first daily newspaper—Water Supply Scheme (Botany Swamps) initiated—Hume discovered new road to Bathurst—Cunningham explored Upper Darling and pastoral district of Darling Downs—Regular mail services instituted—Petition for civil rights of trial by jury and representative legislature—Customs organised and established; naval officership superseded thereby—Office of Lieutenant-Governor abolished.
- 1828 Drought (three years)—Sturt's expeditions and discovery of Darling and Murray Rivers—Legislative Council enlarged to fifteen members—First Census, population 36,598—Letters of Denization—Western Plains Settlers return—Clarence and Richmond Rivers discovered—"Australian" newspapers under the libel law of 1827—Whooping-cough epidemic—Stirling's expedition to Western Australia.

- 1829 First Land Grant to the Church and School Corporation—First Act of Council, establishing trial by jury in civil cases—Settlement established in Western Australia—St. Mary's Cathedral founded—Gunpowder first made in Australia—Sturt's expedition down Murrumbidgee River to mouth of Murray; discovery of Darling River—Archdeacon Broughton arrived in Sydney—First Circuit Court—"Holey Dollar" ceased as currency.
- 1830 Bushrangers Act passed in one day—Sturt's overland journey—Scarcity of labour; immigration proposed—Dr. Lang's Scotch mechanics introduced—Licensing Act—Road to Hunter River formed—Beef shipped to England, and horses to India—Water Police established in Sydney.
- 1831 Governor Bourke arrived—Lord Ripon's Land Regulations for Auction Sales—Land Grants abolished—Mitchell's explorations north of Liverpool Plains—First immigrant ship arrived—Government Domain opened—Australian Steam Conveyance Co. formed—Lang's Australian College founded—First steamer, "Sophia Jane," arrived at Sydney—First contract for conveyance of mails—First Colonial-built steamer launched—*Sydney Morning Herald* published—Small-pox amongst aborigines at Port Macquarie—Busby imported grape-vine plants from France and Germany.
- 1832 First appropriation of Public Funds for Immigration—Church and School Corporation Charter revoked—King's School, Parramatta, opened—*Government Gazette* first published—Sydney Theatre opened—Savings Bank of New South Wales instituted—Legal proceedings first reported in Press.
- 1833 Sydney Mechanics' School of Arts established—Appellate jurisdiction of Privy Council extended to Colony—Census, population 60,794—Public meetings: petition for representative assembly and protest against appropriation of revenue except for local purposes—Australian Steam Navigation Company formed.
- 1834 Commercial Banking Company established—First Friendly Society formed—Trouble at Norfolk Island—Settlement at Twofold Bay.
- 1835 Mitchell established Fort Bourke on the Darling River—Bank of Australasia founded—First Roman Catholic Bishop (Dr. Polding) arrived—Sydney College Grammar School opened—Public Meeting petitioned "representation" in Parliament—Cunningham killed by aborigines—Road to Illawarra commenced.
- 1836 Mitchell in the South (Australia Felix)—Squatting formally recognised—First Anglican Bishop (Dr. Broughton) consecrated—Bishopric of Australia separated from Diocese of Calcutta—Act passed for maintenance of ministers of religion—Australian Museum founded—Census, population 77,096—South Australia proclaimed a separate Colony.
- 1837 Select Committee on Transportation appointed in London—Great snow fall near Sydney—Foundation stone of St. Andrew's Cathedral re-laid—Australian Gas Light Company founded—Water Supply, tunnel from Botany Swamps, completed—Prepayment of postage by stamped covers.
- 1838 Drought; crops failed—Assignment system ceased—Speculation mania—Governor Gipps arrived—Botanic Gardens opened to the public—Reporters allowed in Legislative Council Chambers—Sale of Port Phillip Land at Sydney—Australian Club founded—Recruiting for the army commenced.
- 1839 Squatting Act passed—Strzelecki found gold near Hartley—Mr. (Sir) Alfred Stephen, Judge of Supreme Court—Military juries ceased—Church Act established religious equality.
- 1840 Monetary crisis—Strzelecki's expedition to Western Port—Mt. Kosciusko named—Abolition of transportation of convicts—Land Revenues appropriated to public works and immigration—Wine industry established—Benjamin Boyd, founder of Boyd Town, Twofold Bay, arrived in Sydney.
- 1841 Rev. W. B. Clarke found grains of alluvial gold near Bathurst—First Public (Immigration) Loan—Immigration Committee appointed—New Zealand proclaimed a separate colony—Sydney lit with gas—Site purchased for first permanent Synagogue—Census, population 116,731—Darlinghurst Gaol opened—First outbreak of scarlatina.
- 1842 Sydney Municipal Corporation established—Insolvency Law passed—Bank crisis—Crown Land Sales Act—Richmond River discovered—Tobacco first manufactured—Moreton Bay settlement proclaimed—First statue in Australia (Governor Bourke) unveiled at Sydney.
- 1843 Second Constitution Act; twelve Crown nominees and twenty-four elected members of Legislative Council—Incorporation of Suburban and City Towns—Bank of Australia Lottery—First General Election—Representative Assembly meets—First "Boiling down" of sheep.

- 1844 Exports exceeded imports—First District Court held—Pastoral Association formed—Norfolk Island annexed to Van Diemen's Land—Leichhardt explored from Moreton Bay to Port Essington—Synagogue opened.
- 1845 Mitchell explored Barcoo—Responsible Government discussed.
- 1846 Governor Fitzroy arrived—Railroad agitation—Sydney Tram and Rail Company formed—Public protests against renewal of transportation—Imperial Act giving fourteen years' lease to squatters in unsettled districts—Census, population 154,205.
- 1847 Crown Land Leases Act—Australian Agricultural Co. abandoned Coal monopoly—Proposed German immigration—First overland mail between Sydney and Adelaide—Pacific Islanders introduced—Parramatta Observatory closed.
- 1848 Chinese immigration—Kennedy's last exploring expedition—Railway Commissioner appointed—National and Denominational School Boards—Carcoar copper mines discovered—Leichhardt set out on last expedition—Order in Council of 1840 terminating transportation to New South Wales revoked.
- 1849 Exodus of population to Californian gold-fields—Australian Mutual Provident Society formed—Uniform twopenny postage instituted—Contract for conveyance of English mails—Anti-transportation meetings—Last convict ships "Hashemy" and "Randolph" arrived.
- 1850 First sod of first Australian railway turned at Sydney—University of Sydney incorporated—Anti-transportation league formed—Scarcity of water in Sydney—Nepean scheme proposed—Postage stamps introduced.
- 1851 Hargraves discovered payable gold near Bathurst—Gold proclaimed Crown property—Gold Commissioner appointed—Mineralogical and Geological survey of New South Wales by Surveyor Stutchbury—Colony of Victoria (Port Phillip District) separated from New South Wales—Imperial Act authorised preparation of constitution for New South Wales—First railway contract signed—Census, population 182,424.
- 1852 Gundagai floods (seventy-seven lives lost)—Gold revenue allocated to Colonial Legislatures—First P. & O. mail steamer ("Chusan") arrived from England—Inauguration and formal opening of Sydney University—Framing of Constitution—Discovery of tin by Clarke.
- 1853 Australian Joint Stock Bank incorporated—Newcastle-Maitland Railway Company formed—First steamer on the Murray—Sydney City Corporation dissolved—Australian Museum (founded 1836) incorporated—Defence works of Port Jackson commenced—First Sewerage works in Sydney—Constitution Bill passed—Loan account commenced.
- 1854 Russian War scare—Volunteer Forces enrolled—Fitzroy Dock commenced—University affiliated colleges established.
- 1855 Railway, Sydney to Parramatta, opened—Governor Denison arrived—Gold-fields control scheme—Royal Sydney Mint established—New Constitution inaugurated—First Australian gun-boat ("Spitfire") launched at Sydney—Operative masons obtained eight-hour concession.
- 1856 First elective Parliament—First responsible Ministry—First registration by Government officers of Births, Deaths, and Marriages—Sydney Observatory established—Pitcairn Islanders placed on Norfolk Island—Norfolk Island transferred to jurisdiction of Governor of New South Wales—Iron pillar letter receivers erected in Sydney—Census, population 252,640.
- 1857 Floods—Wrecks of "Dunbar" (119 lives lost) and "Catherine Adamson" (21 lives lost) at Sydney Heads—Select Committee on Federation—First gold register issued—Sydney Exchange opened—P. & O. and Royal Mail Company's services inaugurated—Gold-field regulations—Electoral lists and rolls printed—Corporation of Sydney restored—Newcastle and Maitland connected by rail—Fitzroy Dock finished.
- 1858 Manhood suffrage and vote by ballot enacted—Telegraphic communication, Sydney to Melbourne—Royal Charter to Sydney University—Drought—Macarthur's sheep flocks dispersed—General Election—Chinese Restriction Bill defeated by Upper House—Legislation to establish District Courts and Country Municipalities—Alpacas introduced—Murrumbidgee River navigated by steam as far as Gundagai.
- 1859 Queensland (Moreton Bay) separated from New South Wales—Parliamentary Elections—Cadell ascended Darling River in steamer for 500 miles.

- 1860 Floods, Shoalhaven and Araluen—Kiandra gold-field rush—Cumberland disease in cattle—Rifle Association formed—Glebe Abattoirs—Deaf and Dumb and Blind Institution founded—Volunteer movement commenced—Troops sent from New South Wales to New Zealand (Maori war).
- 1861 Governor Sir John. Young arrived—Lambing Flat gold rush—Anti-Chinese riots at Lambing Flat and Burrangong gold-fields—Sir John Robertson's Land Act; free selection before survey—Constitutional crisis—Restriction of Chinese immigration—Emigration Commissioners, Parkes and Dalley, appointed to visit the United Kingdom—Pitt-street Tramway opened—Census, population 350,860—Sydney and Brisbane connected by telegraph.
- 1862 Drought—Lachlan (Eugowra) gold escort robbed (£14,000 taken)—State aid to religion abolished—Real Property (Torrens) Act—Railway opened to South Creek—Free selection of land first came into operation.
- 1863 Outlaw Gilbert's robbery, Bathurst and Canowindra besieged for thirteen days—Naval Brigade organised—Agent-General appointed—Northern Territory separated and annexed to South Australia—Money Order Office established.
- 1864 Darling River floods—Freetrade Association of New South Wales formed.
- 1865 St. Mary's Cathedral burned—Border Duties Conference—Stamp Duties imposed.
- 1866 Public Schools Act (Sir Henry Parkes); Council of Education replaced National and Denominational School Boards—General Post Office, Sydney, commenced.
- 1867 Industrial Schools established—Municipalities Act—Diamonds found at Mudgee—First Volunteer Land Order issued.
- 1868 Governor Lord Belmore arrived—Duke of Edinburgh's visit—His attempted assassination at Clontarf—Foundation Sydney Town Hall laid—Game Act came into operation—Great tidal wave in Port Jackson—First issue of bronze coin by Sydney Mint.
- 1869 Eskbank Iron Company established—Old Australian Subscription Library converted into Free Public Library—Foundation of Captain Cook's monument laid by Duke of Edinburgh—Belmore Markets opened—Tender for rolling stock (£60,000) of Australian manufacture accepted by Government—Railway to Goulburn opened.
- 1870 Bush Fires—Intercolonial Exhibition at Sydney, celebrating Centenary of Cook's landing, Monument erected at Kurnell, Botany Bay—Gold-fields Commission—Imperial troops withdrawn from New South Wales.
- 1871 Forest Reserves established—Permanent military force raised—National Art Gallery founded—Census, population 503,981—Inauguration of annual celebration by four Eight-hour trade unions.
- 1872 Governor Sir Hercules Robinson arrived—International Exhibition at Sydney—Death of William Charles Wentworth—Government (Post Office) Savings Banks established—Public Works expansion—Sydney Meat Preserving Co.'s Works established—Cable to England completed—Tin-fields opened.
- 1873 Intercolonial Conference, Sydney—First Volunteer encampment—Great activity on gold-fields—San Francisco Company mail service established—Miners' strike, Newcastle—Matrimonial Causes Act—Newspaper Postage Repeal Act and Friendly Societies Act.
- 1874 Triennial Parliaments—Intercolonial Conference—General Post Office opened—Volunteer Land Orders abolished.
- 1875 (New Land Act), "Dummying" restricted—Postcards introduced—Sydney Town Hall opened.
- 1876 Telegraphic Cable, Sydney-Wellington (N.Z.), completed—Railway to Bathurst opened—Deniliquin-Moama Railway opened.
- 1877 Conference of Free Selectors—Hargraves pensioned for gold-fields discovery—Rail to Orange and Cootamundra—Tolls abolished.
- 1878 Seamen's strike—Forestry and Timber regulations—Technical College instituted in connection with Sydney Mechanics' School of Arts—Free Public Library and Museum opened on Sundays—Formation of Sydney Yacht Squadron—Rail to Wagga—Whooping-cough epidemic—Prince Alfred Hospital opened—Pioneer vessel (ss. "Garonne") of Orient S.N. Co. arrived from London.
- 1879 Governor Loftus arrived—Royal Zoological Society founded—Garden Palace International Exhibition at Sydney—Captain Cook's Statue unveiled in Sydney—First Steam Tramway in Sydney—Copyright Act—National Park dedicated—Technological Museum opened—First issue silver coin from Sydney Mint—Artesian water found on Kallara Run, near Paroo River.

- 1880 Public Instruction Act and Electoral Act passed—Temora Gold-field—Sydney streets wood-paved—Country Towns Water Supply and Sewerage Act—Telephones established in Sydney—Solitary Island Lighthouse opened—Railway communication Sydney to Melbourne established.
- 1881 Colonial Sugar Refining Company's mill erected, Richmond River—Chinese Immigration restricted—Women admitted to lectures, Sydney University—Rail to Dubbo, Albury, and Darlington Point—Trade Unions Act—State Children's Relief Board established—Census, population 751,468—Prince Albert Victor and Prince George of Wales arrived in H.M.S. "Bacchante."
- 1882 Garden Palace destroyed by fire—Forest Conservation—Clyde Engineering Works established—Licensing Act came into operation—Metropolitan Cattle Saleyards opened—Salvation Army established—Small-pox in Sydney.
- 1883 Silver discovered at Broken Hill—Broken Hill Proprietary Syndicate formed—New South Wales and Victorian railway systems connected—Foundation Stone laid, new Town Hall, Sydney—State system of Technical Education instituted—Destruction of rabbits compulsory—Diamonds found at Bingara—Miners' strike, Newcastle—Intercolonial Federation Conference.
- 1884 Land Sales' auctions restricted—Public Watering Places Act—Smelting Furnaces, Sunny Corner and Silvertown—New Land Act passed—Geographical Society of Australia inaugurated.
- 1885 N.S.W. Military Contingent sent to Soudan—Broken Hill Silver Mines opened—Governor Carrington succeeded Lord Loftus—Territorial Division of the Colony—Local Land Boards—Intercolonial Trades' Union Conference—Federal Council constituted.
- 1886 Industrial Depression—"Ly-ee-Moon," "Corangamite," "Keilawarra," and "Helen Nicol" wrecks—University Extension Lectures inaugurated—Foreign parcels post established—Dairies Supervision Act.
- 1887 Bulli Mining disaster (eighty-three lives lost)—Metropolitan Board of Water Supply and Sewerage established—Loyalist meeting in Sydney (Jubilee celebrations)—Peat's Ferry railway accident—General Election—*Ad valorem* duties ceased—School Savings Banks established—Scarcity of employment; Government relief works started.
- 1888 Bush Fires—Centennial celebrations—Centennial Park dedicated—Drastic Legislation against Chinese immigration (poll tax, £100)—Colliers' strike at Newcastle—Weekly mail service to England inaugurated—New South Wales and Queensland railway systems connected—Railway Commissioners appointed.
- 1889 Hunter River Floods—Royal Naval House built at Sydney—Rail communication, Brisbane to Adelaide, established by opening of Hawkesbury River Bridge.
- 1890 Payment of members of Parliament—Strike at Broken Hill—Maritime and Shearers' strikes—Bush Fires—Bourke (Darling River) Floods—Opening of Sutherland Graving Dock.
- 1891 Failure of many Building Societies—Governor Lord Jersey arrived—Labour members returned to Legislative Assembly—Australian Auxiliary Squadron arrived—First National Australasian Convention—Colonial Premiers' meeting—Australasian Colonies join Postal Union—Sir John Robertson died—Cessation of assisted immigration—Census, population 1,132,234.
- 1892 Strike at Broken Hill—Run on Government Savings Bank—Council of Conciliation established—Women's College, Sydney University, opened—Hunter River District Water Supply Board—Technical College, Ultimo, opened.
- 1893 Banking Crisis—Governor Sir Robert Duff arrived—Inland and Interstate Parcel Post inaugurated—Gold discovered at Wyalong—Electoral Act, "One Man One Vote"—Sydney-Vancouver mail service established—Mount Drysdale gold-field discovered—Cable communication with New Caledonia—Postal Notes issued—Married Women's Property Act.
- 1894 Shearers' strike—Royal Commission on Fish industry—First Offenders' Probation Act—Sir Alfred Stephen died—Railway disaster, Redfern Station—Kuring-gai Chase dedicated—Banks Exchange Settlement Office established—Sydney Hospital, new building, opened.
- 1895 Land Legislation—Death of Sir Robert Duff—Viscount Hampden succeeded—Land and Income Taxes imposed and Free-trade Tariff instituted—Federal Convention at Hobart—Standard Time Act.

- 1896 Death of Sir Henry Parkes—Factories and Shops regulations—P. N. Russell bequest to School of Engineering, Sydney University—Public Service reorganised—Enfranchisement of Police.
- 1897 Municipalities Act.
- 1897-8 Federal Convention Sessions, Adelaide, Sydney, and Melbourne.
- 1898 First year surplus of wheat for export—Proposed Federation rejected by New South Wales—Sydney and Newcastle connected by Telephone.
- 1899 Earl Beauchamp succeeds Governor Hampden—Advances to Settlers instituted—Conciliation and Arbitration in Industrial Disputes—Australasian Federation Enabling Act Referenda—Early Closing of Shops—Boer War; first Contingent sent to South Africa from New South Wales—Electrification of City Tramways commenced—Incorporation of Public Library—Friendly Societies' Act.
- 1900 Governor Beauchamp's departure—Old-age Pensions instituted—Miners' Accident Relief Fund established—Federal Elections—Metropolitan Traffic Act—Inebriates Act—Naval Contingent despatched to China.
- 1901 Federation of Australian Colonies under name of Commonwealth of Australia—Visit of T.R.H. the Duke and Duchess of Cornwall and York—Industrial Arbitration Act—Sydney Harbour Trust formed—Naval Contingent returned from China—Federal High Court inaugurated—Census, population 1,359,133—Closer Settlement Act—Western Lands Act—Introduction of Pacific Islanders prohibited—Postal, Customs, and Defence Departments transferred to Commonwealth—Interstate Free-trade—Dentists Act—Woolwich Graving (Mort's) Dock completed.
- 1902 Sir H. H. Rawson as Governor—Mt. Kembla Colliery Explosion (ninety-five lives lost)—Jubilee of Sydney University—Women's Franchise—Public Health Act—Pacific Cable completed—Legitimation of Children Act—Cattle Slaughtering and Diseased Animals and Meat Act—First Sitting of Arbitration Court.
- 1903 Referendum favouring reduction of members of Legislative Assembly from 125 to 90—Land Legislation—High Court of Australia constituted—Commercial Causes Act.
- 1904 Reduced Parliament—Redistribution of Electorates—Second P. N. Russell bequest, Sydney University—Educational Reforms commenced—Patents, Trade Marks, &c., transferred to Commonwealth.
- 1905 Flood on Tumut River—Assisted Immigration reintroduced—Teachers' Training College opened—Kurnell proclaimed recreation reserve—Children's Courts instituted—Habitual Criminals Act—United Dental Hospital of Sydney established—Shires Act.
- 1906 Barren Jack Dam authorised—Free Public School Education—North Coast Railway authorised—Local Government—Sydney Central Railway Station opened—Liquor Act, with drastic provisions—Federal Elections—Dr. Danyusz's experiments in rabbit destruction.
- 1907 Department of Agriculture formed—Invalidity and Accident Pensions—Telephone, Sydney to Melbourne—Opening of blast furnace for manufacture of iron and steel at Lithgow—Consolidation of Small Schools commenced—Continuation Schools projected—Forestry Commission appointed—Cataract Dam completed—Medical inspection of School Children initiated.
- 1908 Visit of United States (American) Fleet—Industrial Disputes Act—Minimum Wage Act—Industrial Wages Boards constituted—Subventions to Friendly Societies Act—Yass-Canberra Federal Capital Site selection—Coal Strike, Newcastle—Tramway Strike, Sydney—First Travelling School—Manufacturers Encouragement Act (Federal)—Crown Lands Amendment Act (Conversions)—Commonwealth Meteorological Bureau established—Departure of "Nimrod" Antarctic Expedition (Lieutenant Shackleton, leader).
- 1909 Lord Chelmsford, Governor—Fisher Library (Sydney University) opened—Empire Commerce Congress at Sydney—Old-age Pensions taken over by Commonwealth—Botany Wool-combing Works established—Premiers' Conference on States' finance agreement with Commonwealth Government—Miners' strikes, Broken Hill and Newcastle—Sydney Municipal Library formed by transfer of Lending Branch of Public Library—Long Bay Female Penitentiary opened—Quarantine administration transferred to Commonwealth—Lord Kitchener's report on Defence—Pure Food Act—Return of "Nimrod" Antarctic Expedition—Private Hospitals Act.

- 1910 Coal Miners' strike ended—Mitchell Library opened—State and Federal Elections—Referenda favouring transfer of State Debts to Federal Government and rejecting proposed States finance agreement with Commonwealth—Australian silver coinage issued—Parliamentary Elections (Second Ballot) Act—Saturday Half-holiday Act—Railway Superannuation—New mail contract with Orient Company—Workmen's Compensation Act—Federal Land Tax—First State Labour Ministry—Sydney Municipal Fish Markets opened—Invalidity Pensions transferred to Commonwealth—Recreation ground at Rose Bay transferred to Royal Navy—Fire Brigades Act—Scottish Agricultural Commission on tour—Departure of "Terra Nova" Antarctic Expedition (Captain Scott, leader).
- 1911 Commonwealth Notes issued—Federal Referenda relating to Monopolies and Industrial Legislation; proposals rejected—First Australian warships in Commission—Launch of Australian torpedo-boat destroyer "Warrego" at Cockatoo Island—State Brickworks started—Transfer of Federal Capital Site to Commonwealth—Opening of Pioneers' Club—Compulsory military training—Detachment of cadets to England for Coronation—Radium used at Sydney Hospital—Penny Postage to all parts of British Empire—Murrumbidgee Irrigation Act—J. J. Hammond on his bi-plane with Frank Coles, mechanician, flew over Sydney and harbour, circling the Post Office clock, the flight lasting forty minutes—Interstate eight-oar race, won by N.S.W. crew—Celebration of Manufacturers' Week—Arrival of first party of boys under Dreadnought Farm scheme—Royal Commission, Lord Howe Island Palm Seed trade—First Wireless Station of Commonwealth Government erected at Pennant Hills, near Sydney—Factory for Small Arms erected at Lithgow—Solar Eclipse observed at Vavau by Australian party of Scientists—Premier attended Imperial Conference in London—Coronation of King George V—Military College opened at Duntroon—Abolition of Nautical School Ship "Sobraon"—Royal Commission on Decentralisation in railway transit—Randwick Wireless Station, with Australian-made apparatus, demonstrated capacity of transmitting messages over 2,000 miles—Japanese Antarctic Expedition replenishing stores at Sydney—Food Supply Commission—Shortage of Labour Commission—Electoral District Commissioners appointed to redistribute Electorates—Death of Cardinal Moran—Quarry and plant of Kiama Road Metal Co. purchased by Government—Australasian Medical Congress at Sydney—First section of North Coast Railway opened—Census taken on 3rd April, 1911.

METEOROLOGY AND CLIMATE.

THE State of New South Wales lies almost entirely between the 29th and 36th parallels of south latitude, and between the 141st and 154th meridians of east longitude.

AREA OF STATE.

The area comprised within these limits is estimated at 310,367 square miles, or 193,634,880 acres, being a little over two and a half times that of Great Britain and Ireland. Excluding the surface covered by rivers and lakes, the area is 195,669,000 acres, or about 305,733 square miles. Lord Howe Island, a dependency of New South Wales, situated about 300 miles east of Port Macquarie has an area of 5 square miles.

The length of the State, from Point Danger on the north to Cape Howe on the south, is 683 miles. From east to west, along the 29th parallel, the breadth is 756 miles, while diagonally from the south-west corner, where the Murray passes into South Australia, to Point Danger the length reaches 984 miles.

WEATHER.

Mr. H. A. Hunt, Commonwealth Meteorologist, who issues invaluable periodical Meteorological Reports, states that the weather is chiefly determined by anticyclones or areas of high barometric pressure, in which the winds blow spirally outward from the centre or maximum. These anticyclones pass almost continuously across the face of the continent of Australia from east to west. The explanation of the existence of this high-pressure belt probably lies in the fact that this area is within the zone in which the polar and equatorial currents meet and for some time circulate before flowing north and south. The easterly movement depends on the revolution of the earth.

A general surging movement occasionally takes place in the atmosphere, sometimes towards, and sometimes from, the equator. The movement causes sudden changes in the weather—heat when the surge is to the south, and very cold weather when it moves towards the equator. Probably, these sudden displacements of the air systems are due to thermal action, resulting in expansion or contraction in the atmospheric belts to the north and south of Australia.

New South Wales is peculiarly free from cyclones, although one, occasionally, may reach the State from the north-east tropics or the Antarctic low pressure belt which lies to the south of Australia. The monsoonal disturbances are also, on rare occasions, the source of cyclones.

PREVAILING WINDS.

Generally speaking, the prevailing winds in the summer months blow from the north on the coast with an easterly tendency which extends to, and in parts beyond, the highlands, while in the western districts they usually have a westerly tendency.

In winter, the prevailing direction is westerly. Off the southern areas of the State the winds are almost due west, but proceeding northwards a southerly tendency is assumed, while on reaching latitudes north of Sydney the direction is almost due south. When they reach the north-eastern parts of the State, these winds are deflected in a westerly direction and become

merged in the south-east trade winds north of latitude 30°. During the cold months of the year, Australia lies directly in the great high-pressure stream referred to elsewhere, and there appears to be an inclination for the high pressure when passing over the continent to be broken up into individual anticyclonic circulations moving contra-clockwise in the southern hemisphere.

The highest barometric readings, or the deepest anticyclonic area, will be found over the centre of Australia. From this high-pressure area the currents of wind begin to flow by force of gravity to the surrounding regions of lesser pressure, commencing at first with very light breezes flowing almost parallel to the trend of the isobar; but as they gather momentum they become more and more deflected, until on reaching the limit of the propelling force they blow nearly at right-angles to their isobars. This is more especially noticeable when they reach the south-eastern and south-western part of the continent, for in those regions the well-known V-shaped depressions of the Antarctic low-pressure belt add their attractive inner force to the outward repelling force of the high-pressure areas. The velocity of the wind at these points is thus considerably accelerated, and hence the storms and heavy seas prevailing during the winter months off the Leeuwin, in Western Australia, and on the coast of Victoria.

If we follow the path of a current of wind from the centre of a high pressure to its destined goal, viz., the centre of a low pressure, it will be found to describe an evolute curve, or circulate spirally outwards in its early stages, while the reverse is the case in the wind-path of low-pressure or cyclonic systems, the final stages being in the form of an involute curve. In addition to these phenomena of the wind in high and low pressure areas, there is also a tripping motion or deflection earthwards.

As winter merges into spring, and spring into summer, the passing of the sun to the south of the equator causes the tropical low-pressure belt to descend polewards, and within close touch of Australia. The high-pressure belt which in the winter months controls the weather, is likewise forced southwards, and travels over the Southern Ocean, an occasional anticyclone reaching the mainland in the latter end of the spring, but very seldom in summer.

With the coming southwards of this low-pressure belt, the weather is controlled during the summer months by sub-tropical conditions. The barometers on the mainland being relatively low as compared with the prevailing readings over the western, southern, and eastern ocean surrounding, a reversal of direction in wind currents takes place as compared with that experienced in winter. The depression then ensuing on the mainland (instead of a high pressure) is still further intensified by the action of the sun on the arid interior, and the winds immediately begin to respond to the low-pressure attractive force, and flow in from the surrounding ocean with a spiral motion. This movement must be duly regarded, or the cause of the prevailing north-east winds on our coast, as well as the "southerly bursters," will not be clearly understood.

With a high-pressure system over the Tasman Sea, another to the west of the Great Australian Bight, monsoonal or tropical low depressions covering the greater part of the mainland, and an Antarctic V-depression to the west of the Tasman Sea, the wind conditions will be as follows:—

In the first place, the high pressure lying to the east of New South Wales, conforming to the laws of wind circulation in the southern hemisphere, has a northerly circulation on its western limits. As this boundary lies almost parallel to the trend of the coast-line, northerly winds are found to prevail some distance off the shore; but the circulation is weak, owing to the depleted energy in anticyclones at this time of the year (summer), and it is, therefore, necessary to look elsewhere for some other cause for the strength which prevails in the seasonal north-easters.

Continued observation at Sydney shows that these winds are barely perceptible during the morning hours; in fact, up to noon the air is hot and muggy, owing to a listless veering to the north-west bringing back the reflected heat in the air from the country lying between the seaboard and the mountains. But at noon, or shortly afterwards, a decided freshening takes place, until at about 3 p.m. a moderate to fresh breeze is blowing along the seaboard. Later in the day the force of the wind relaxes, until at sundown it ceases entirely.

These characteristics may occur day after day; and if such be the case, there is a tendency for the wind to commence earlier, and die away later. If no break occurs in the weather in the shape of a "southerly burster" or a thunderstorm, the north-easter, after blowing continuously for several days, may eventually blow throughout the night. In the early morning there will be a lull, followed by a fog—the precursor of a hot day. The fog is soon dissipated by light westerly winds and blown away to sea, and the wind then veers to the N.W., gradually increases in force, and is accompanied by a rapid rise in the temperature. The thermometer may, indeed, rise as much as 10 or 20 degrees in the course of a few hours, occasionally reaching a maximum of 100 degrees and over. During the evening a thunderstorm may bring temporary relief, only to be followed by a sweltering night and a return of the north-west wind on the succeeding day. The heat conditions will probably be dissipated then by a "southerly burster," lasting possibly till morning. The "southerly burster" rarely persists for any lengthened period after sunrise during the midsummer months; but in late spring or early autumn it may last for several days.

The cause of the initial direction of the north-easters has been stated above; but it is in the low-pressure conditions prevailing over the interior that an explanation of their velocity is to be sought. In the early morning the barometers in that region are uniformly level; but with the rising of the sun the air becomes heated, expands, and ascends. A fall in the barometric pressure is the result, while to fill the partial void occasioned by the rising of the heated air, a current sets in from the coastal regions. This indraft to the interior gathers strength in proportion to the increase of the sun's power there, while it diminishes with the declining sun according as the inflow is sufficient to raise the inland pressure to uniformity.

But while this low pressure is fairly constant over the mainland, the anti-cyclone in the Great Bight is steadily moving eastward over the Southern Ocean, with its accompanying Antarctic depression in advance. When this low pressure has passed to the east of Tasmania, its vortical power is also exercised upon the northerly current blowing off the coast, with the result that the north-easter is deflected into a north-wester, and the winds are drawn from the interior across the coastal regions in response to this new attractive force. The V-depression, impinging on the high pressure to the east of it, and at the same time being compressed by the still advancing high pressure to the west, loses its former obtuse-angular formation, which finally becomes acute. A line bisecting this angle divides the northerly circulation in the fore-angle from the southerly circulation in that of the rear. At the same time the entire system is sucked northwards by the continental depression. Hence it follows that in succession to the extremely hot north-westerly winds we experience after a very short lull a burst from the south of even greater velocity than that of the preceding currents. The thunderstorms that frequently precede or accompany the change are probably caused by the violent intermixing of these opposing currents, with their extremes of dryness and humidity, assisted in no small measure by the dust particles pervading the air generally.

THE SEASONS, TEMPERATURE, AND RAINFALL.

Situated as it is in the temperate zone, New South Wales has four seasons, depending on the annual march of temperature. From a meteorological point of view, these are arranged as follows:—Summer months, December, January, and February; autumn months, March, April, and May; winter months, June, July, and August; spring months, September, October, and November.

January is the hottest and July the coldest month, and the temperatures of autumn and spring represent approximately the mean of the whole year.

New South Wales may be compared favourably with any country in the world. Taking into consideration the comparatively low latitudes in which it is situated, it offers a remarkable variety of temperate climates. From Kiandra, on the Southern Tableland, to Bourke, on the Great Western Plain, its climate may be compared with that of the part of Europe from Edinburgh to Messina; but more generally it resembles that of Southern France and Italy.

The rainfall of New South Wales is extremely variable. Generally speaking, the wet season extends over the first six months of the year, although occasionally the most serviceable rains come in the spring. The coastal districts are subject to the heaviest falls, ranging from 30 inches in the south to 70 inches in the north. Despite their proximity to the sea, the mountain chains are not of sufficient elevation to cause any great condensation, so that, with slight irregularities, the average rainfall gradually diminishes towards the western limits of the State, the figures ranging from a mean of about 50 inches on the seaboard to 10 or 20 inches on the western plains.

The distribution of rainfall in New South Wales is dependent on three factors—(1) the energy present in the atmospheric systems, (2) the rate of travel of the atmospheric stream, and (3) the prevailing latitudes in which the anticyclones are moving.

The chief agencies for precipitating rainfall are also three in number, viz. Antarctic depressions, monsoonal depressions, and anticyclonic systems. Antarctic depressions are mainly responsible for the good winter rains in the Riverina and on the south-western slopes. A seasonal prevalence of this type of weather would cause a low rainfall on the coast and tablelands, and over that portion of the inland district north of the Lachlan River. A monsoonal prevalence ensures a good season inland north of the Lachlan, but not necessarily in eastern and southern areas. An anticyclonic prevalence results in good rains over coastal and tableland districts, but causes dryness west of the mountains. Equal representation of all these agencies, in conjunction with the main governing features previously stated, will be followed by a good season throughout the State.

New South Wales may be divided, naturally, into four climatic divisions, each with characteristic features, namely:—The Coastal division, the Tableland, the Western Slopes, and the Western Plains.

The Coastal division lies between the Great Dividing Range and the sea, and is from 30 to 150 miles wide. Sydney is situated on the coast, halfway between the extreme northern and southern limits of the State, in latitude $33^{\circ} 51' 41''$ S. Its mean annual temperature is 63° Fahrenheit, corresponding with that of Barcelona in Spain, in latitude $41^{\circ} 22' N.$, and Toulon in France, in latitude $43^{\circ} 7' N.$ The range is only 17° , calculated over a period of fifty-two years, the mean summer temperature being about 71° , and the mean winter temperature 54° . At Naples, which has about the same mean temperature as Sydney, the range is 27° , between the means 74° and 47° .

The following table shows the average monthly meteorological conditions of Sydney based on the experience of the fifty-two years ended 1910:—

Month.	Average Reading of Standard Barometer at 9 a.m. corrected to 32° Fah. and to mean sea level.	Temperature (in shade).			Rainfall.			
		Mean Standard.	Average Reading of Maximum Thermometer.	Average Reading of Minimum Thermometer.	Average Monthly.	Greatest Monthly.	Least Monthly.	Average number of days Rain.
January	29·930	71·6	78·3	64·9	3·444	10·489	0·419	14·1
February.. ...	29·975	71·0	77·2	64·8	4·689	18·556	0·344	14·1
March	30·051	69·2	75·4	63·0	5·134	18·700	0·419	15·3
April	30·108	64·6	70·9	58·2	5·268	24·490	0·060	13·4
May	30·116	58·5	65·0	52·0	5·016	20·868	0·214	15·5
June	30·080	54·4	60·4	48·2	5·276	16·296	0·190	13·0
July	30·116	52·3	58·9	45·6	4·619	13·208	0·120	12·2
August	30·105	54·9	62·2	47·5	3·210	14·886	0·040	11·5
September	30·045	58·9	66·3	51·3	2·906	14·045	0·083	12·2
October	30·003	63·4	71·0	55·8	2·856	10·810	0·210	12·7
November	29·971	66·9	74·2	59·6	2·936	9·880	0·193	12·5
December	29·916	70·0	77·2	62·8	2·595	8·469	0·453	12·9
The whole year ...	30·035	63·0	69·8	56·1	47·949	24·490	0·040	159·4

Taking the coast as a whole, the difference between the mean summer and mean winter temperature is not much over 20°—a range so small as to be rarely found elsewhere.

The North Coast districts are favoured with a warm, moist climate, the rainfall averaging from 40 to 70 inches annually. The mean temperature for the year is from about 66° to 69°, the mean summer being 75° to 78°, and the mean winter 56° to 58°. In the South Coast district the rainfall varies from 30 to 60 inches, and the mean temperature ranges between 57° and 63°, the summer mean being from 66° at the foot of the ranges to 70° on the coast, and the winter from 48° to 54° over the same area.

The coastal rains come in from the sea with both south-east and north-east winds, being further augmented in the later part of the year by thunderstorms, which cross the mountains from the north-west. The principal precipitating agencies are the Antarctic depressions, the anti-cyclones when travelling in high latitudes, while in the extreme north-east reliable rains are precipitated by the south-east trades. The rainfalls are much heavier immediately near the coast.

The following table shows the meteorological conditions of the principal stations in the coastal divisions, arranged in the order of their latitude. These stations are representative of the whole division, and the figures are the average of a large number of years :—

Station.	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall— Mean Annual.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
	miles.	feet.	°	°	°	°	°	°	inches.
Casino	28	82	67·1	74·2	56·3	25·6	116·4	21·0	43·77
Lismore	13	52	67·8	78·2	59·4	22·2	116·2	23·0	53·11
Clarence Heads ...	0	122	68·1	74·4	58·6	15·1	108·0	36·4	55·60
Grafton	22	40	67·2	77·1	57·6	27·0	118·0	20·9	38·97
Port Macquarie ...	0	49	63·8	71·6	54·9	17·6	105·4	24·8	61·22
Singleton	40	135	64·2	76·1	52·1	20·3	113·9	22·0	29·36
Morpeth... ..	15	20	63·8	73·9	54·3	18·1	108·7	26·0	38·57
West Maitland... ..	18	40	64·3	75·0	52·8	20·5	115·0	24·0	33·65
Port Stephens	0	30	64·1	72·6	53·1	20·8	111·2	30·2	52·97
Newcastle	1	34	64·5	72·5	55·4	15·4	110·5	31·3	47·11
Pitt Town	26	40	64·0	76·1	52·6	20·0	113·0	27·2	30·83
Emu	36	87	62·7	73·2	50·4	16·2	107·6	26·8	29·88
Sydney	5	146	63·0	70·9	53·9	13·6	108·5	35·9	47·95
Wollongong	0	54	62·9	70·1	54·8	17·0	113·4	31·9	42·08
Nowra	6	30	62·8	70·6	54·3	21·0	110·3	29·6	36·57
Point Perpendicular ...	0	284	61·6	69·1	53·8	15·0	105·2	25·5	56·03
Moruya Heads	0	50	61·2	68·2	53·1	19·8	114·8	22·3	35·13
Bodalla	7	40	59·9	69·1	50·5	27·7	114·1	18·6	35·96
Bega	0	50	59·7	69·6	48·9	24·9	115·6	16·6	31·17
Eden	0	107	60·0	67·7	51·8	14·2	106·0	29·3	34·20

Coming to the tableland from the coast, a different climatic region is found. On the northern tableland the rainfall is consistent, ranging from 30 inches in the western parts to 40 inches in the eastern. The temperature is cool and bracing, the average for the year being between 54° and 60°; the mean summer temperature lies between 65° and 70°, and the mean winter between 43° and 45°. The southern tableland is the coldest part of the State, the mean annual temperature being only about 56°. In the summer the mean ranges from 57° to 68°, and in the winter from 34° to 44°. At Kiandra, the elevation of which is 4,640 feet, the mean annual temperature is 44·5°. Near the southern extremity of the tableland, on the Snowy and Muniung Ranges, the snow generally lingers throughout the year.

The statement below shows, for the tableland division, similar particulars to those already given for the coastal division :—

Station.	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall— Mean Annual.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
	miles.	feet.	°	°	°	°	°	°	inches.
Tenterfield ...	80	2,827	59·4	70·1	47·2	25·6	107·1	12·0	33·48
Inverell ..	124	1,980	60·0	73·1	45·9	25·0	110·6	13·4	30·69
Glen Innes ...	90	3,518	57·9	68·2	44·4	24·7	107·3	14·4	32·07
Bundarra ...	113	2,000	60·8	72·3	48·8	25·2	101·0	17·5	30·15
Armidale ...	81	3,333	56·4	67·8	44·0	24·3	105·2	13·9	31·61
Walcha ...	83	3,386	54·5	66·3	47·4	23·4	104·1	10·0	30·70
Murrurundi ...	94	1,545	60·9	73·7	49·7	19·8	107·3	19·0	31·76
Cassilis ..	120	1,500	60·8	73·6	45·3	21·7	111·7	15·8	23·88
Scone ...	78	680	62·7	74·8	49·8	23·4	114·4	22·2	23·61
Muswellbrook ...	68	475	63·8	75·2	49·4	25·4	117·6	19·0	23·57
Mudgee ...	121	1,635	62·1	73·8	49·0	29·3	114·9	18·0	25·96
Bathurst ...	96	2,200	57·2	70·0	44·1	28·3	112·5	13·0	23·75
Kurrajong Heights ...	35	1,870	53·3	61·7	45·9	13·3	99·5	25·5	49·93
Mount Victoria ...	61	3,490	54·4	65·2	42·6	19·6	106·0	11·9	36·81
Katoomba ...	53	3,349	53·5	63·0	42·4	15·3	100·0	25·9	55·67
Carcoar ...	111	2,380	56·1	70·4	43·0	19·4	104·9	15·4	29·62
Springwood ...	42	1,216	61·1	70·8	47·2	17·4	104·8	32·5	40·57
Cowra ...	126	987	63·1	78·8	48·5	23·5	116·1	21·0	24·24
Picton ...	22	549	60·0	71·7	49·2	24·3	112·0	19·7	29·11
Crookwell ...	81	2,000	52·0	64·7	39·4	23·7	100·8	12·1	31·93
Moss Vale ...	31	2,205	55·7	66·1	44·1	17·7	106·0	18·9	38·21
Goulburn ...	54	2,129	56·4	67·9	44·0	24·6	111·0	13·0	25·34
Yass ...	92	1,657	58·5	71·8	44·1	20·7	108·5	21·5	23·85
Queanbeyan ...	60	1,899	56·5	67·4	42·0	22·2	109·4	15·8	22·52
Kiandra ...	88	4,640	44·5	56·4	32·4	24·0	102·3	30 below zero	64·08
Cooma ...	52	2,637	54·3	60·2	41·6	29·1	112·0	8·5	19·04
Bombala ...	37	3,000	53·9	62·4	42·8	26·6	104·1	15·5	22·61

To the west of the tableland division, where the land slopes away to the great plain district of the interior, the rainfall is distributed uniformly, and varies from 20 inches in the western parts to 30 inches in the eastern. By far the greater part of the wheat area is situated on the western slopes, an average rainfall of 25 inches being sufficient to ensure good yields. The mean annual temperature ranges from 69° in the north to 60° in the south; in the summer from 81° to 74°, and in the winter from 53° to 47°.

North of the Lachlan River, good rains are expected from the monsoonal disturbances during February and March, although these may come as late as May, and incidentally during the remainder of the year. These monsoonal or seasonal rains are caused by the radiation in the interior during the summer months. The heat, during this period, suspends the moisture accumulated chiefly from the Southern Ocean, and towards the close of the

summer and early in autumn the sun's power is reduced and the dew-point reaches the precipitating point.

In the Riverina district, south of the Murrumbidgee generally, and on the south-western slopes, fairly reliable rains, light but frequent, are experienced during the winter and spring months. These are an extension of the rains from South Australia and Victoria, and are carried into New South Wales by south-west winds, offshoots from the great trade-wind belt.

The next statement gives, for the principal stations on the western slopes, information similar to that shown for the coastal and tableland divisions:—

Station	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall— Mean Annual.
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
	miles.	feet.	°	°	°	°	°	°	inches.
Moree	204	680	68·6	81·1	54·5	26·5	117·3	18·0	23·60
Warialda	162	1,106	63·4	77·8	49·3	29·4	117·7	16·0	28·35
Bingara	153	1,200	63·9	75·1	52·7	28·4	116·6	15·5	31·15
Narrabri	193	697	66·8	81·0	51·8	28·8	118·9	18·4	26·39
Gunnedah	156	874	66·1	79·6	51·2	28·0	120·6	16·7	24·91
Coonabarabran ..	185	1,710	59·9	73·1	46·4	33·1	111·9	11·4	29·63
Quirindi	115	1,278	63·9	76·5	48·5	27·1	113·6	17·0	27·93
Dubbo	177	863	63·6	77·4	49·2	27·4	115·4	19·9	22·39
Forbes	176	789	62·8	76·8	48·6	24·5	118·4	24·0	19·90
Young	140	1,416	61·2	74·1	48·3	28·2	113·9	20·3	25·30
Marsden	187	700	64·8	76·8	49·2	25·0	119·7	19·0	19·70
Murrumburrah ...	126	1,268	61·1	72·7	46·9	27·1	114·9	20·0	23·95
Wagga Wagga ...	158	615	61·6	76·0	47·3	28·1	119·0	18·4	21·57
Urana	213	400	62·3	76·2	48·1	22·6	117·0	18·4	16·91
Albury	175	531	60·7	74·4	47·2	28·3	117·3	20·2	27·91

The western district consists of a vast plain, the continuity of which is broken only by the insignificant Grey and Barrier Ranges. Owing to the absence of mountains in the interior, the annual rainfall over a great part of this division, which lies in the zone of perpetual high pressure, does not exceed 10 inches. It increases from 8 inches on the western boundary to 10 and 15 inches along the Darling River, and 20 inches on the eastern limits. The mean annual temperature ranges from 69° in the north to 62° in the south; in the summer from 83° to 74°, and in the winter from 53° to 45°.

Although the summer readings of the thermometer in this district may be from 10° to 20° higher than those on the coast, the heat is not distressing, and is, in fact, preferred by many people to the moisture and more enervating heat of the coastal regions. Excessive heat is experienced occasionally, and with many summers intervening, its occurrence being in all probability due to a temporary stagnation in the easterly atmospheric drift. Under normal conditions, air entering Western Australia with a temperature of from 70° to 80° would only accumulate 20° to 25° by contact with the radiation from the soil during its passage across the continent.

Where there is stagnation, however, the air resting over the sandy soils of the interior becomes superheated, and on reaching the western districts of the eastern States shows a temperature sometimes as much as 40° above the normal. Extensive bush fires also cause a local rise in temperature, and this is due, not only to the actual heat generated, but also to the liberation of combustible matter into the atmosphere; and it has further been affirmed that the presence of a small excess of carbonic acid gas above the normal quantity in air raises the temperature several degrees. The winter is almost perfect. An average temperature of over 50°, accompanied by clear skies and an absence of snow, leaves little to be desired. It is fortunate, from the standpoint of health, that the climate of the Western Division is dry, otherwise the interior of the State, probably, would have become, with abundant rains, an impenetrable jungle. It is also owing chiefly to the dryness of the climate that Australia produces the best merino wool in the world.

The meteorological conditions of the western plains will be seen from the following statement; the information is similar to that given already for the other divisions of the State:—

Station.	Least Distance from East Coast.	Altitude.	Temperature (in Shade).						Rainfall— Mean Annual
			Mean Annual.	Mean Summer.	Mean Winter.	Mean Daily Range.	Highest.	Lowest.	
	miles.	feet.	°	°	°	°	°	°	inches.
Brewarrina ...	345	430	69·3	84·0	52·9	26·3	122·3	24·8	16·55
Walgett... ..	286	522	68·3	82·8	52·9	25·7	122·2	23·7	18·93
Bourke	386	350	69·3	84·0	54·2	27·6	127·0	25·0	15·04
Wilcannia	473	246	66·5	80·3	52·1	26·2	120·8	21·8	10·19
Cobar	345	803	66·6	81·5	51·7	24·9	118·7	25·0	14·50
Broken Hill	555	1,000	65·0	78·1	51·0	24·3	115·9	28·5	9·30
Mount Hope	296	600	65·3	80·9	50·3	24·8	123·6	24·6	15·10
Condoblin	227	700	62·7	76·8	50·8	25·6	122·2	20·5	17·57
Wentworth	478	144	64·1	76·9	51·1	26·7	119·0	25·0	11·93
Hay	309	291	63·5	76·5	50·5	28·0	117·3	24·9	14·12
Euston	422	188	64·2	77·0	51·0	33·2	124·8	17·1	12·32
Deniliquin	287	268	61·9	74·6	48·2	30·2	121·1	18·0	16·29

Generally speaking, June is the wettest month in all southern districts west of the highlands; in other parts of the interior the wettest month is shared by January, February and March. On the northern tablelands, the central western slopes and central western plains, January claims the highest monthly average. On the north-western plains and over the country to the north of the Darling and east of the Paroo, February is the wettest month.

March enjoys the heaviest monthly average in the far north-west quarter and over the central Darling country between Tilpa and Pooncarie.

Over the coastal districts every month, except November, is represented in some part or another as the wettest.

Information as to the amount of rainfall necessary for the production of wheat during the growing months of April to October and the districts included in the wheat area of the State, may be found in the chapter of this volume which deals with agriculture.

SCIENTIFIC EXPEDITIONS.

On the 9th May, 1910, the total eclipse of the sun was observed at Bruni Island, Tasmania, by an Australian party of scientists, which included representatives from this State.

Whilst every care was taken to have the best of instruments prepared for the purpose, unfortunately the weather was not propitious, and clouds and rain on the day of the eclipse interfered with the chief object of the expedition.

With the intention of witnessing, on the 29th April, 1911, another total eclipse of the sun, and to take observations of the corona, an expedition, representative of all the Australian States, visited the Island of Vavau, of the Tongan Group, Friendly Islands, in the Pacific Ocean.

Valuable photographs of the corona were obtained, many of the negatives showing much detail.

It was unfortunate that during the short period of 217 seconds of obscuration the sky became cloudy, and the view of the eclipse was somewhat disappointing.

During recent years there have been three British expeditions to the Antarctic, namely, "The Discovery," "Nimrod," and "Terra Nova."

With the expedition led by Lieutenant Shackleton, who sailed in the "Nimrod" in 1908, were included representatives from New South Wales.

A party from this expedition found the South Magnetic Pole, and on the 9th January, 1909, came within 97 geographical miles or 112 statute miles of the South Pole. Having acquired much valuable information, the expedition returned to Sydney early in the year 1909, fortunately without loss of life.

This State was represented also in the next Antarctic Expedition, under Captain Robert Scott, of the "Terra Nova," which left Sydney in November, 1910, and is now in the Antarctic regions.

The first really Australasian Expedition will be that under the leadership of Dr. Mawson, which will start for the south during the year 1911, in the steamer "Aurora." The main objects of this expedition are to explore and chart the coast between Cape Adair and Gaussberg (roughly, a distance of 2,500 miles), to investigate its geology and mineralogy; to study glaciers and ice formation; to make systematic magnetic observations, chiefly in the neighbourhood of the Magnetic Pole; to obtain meteorological records whereby to test the advisableness of establishing a permanent meteorological observatory in those parts; and to investigate the abounding fauna of the sea. It is believed that results of high scientific interest, and of economic value to Australia, will result from this expedition.

Whilst referring to Antarctic expeditions, it will not be out of place to mention that the Japanese Antarctic exploration ship, "Kainan Maru," conveying Lieutenant Shirase's South Pole Expedition, left Japan in December, 1910, and, afterwards, New Zealand, when, finding the vessel unsuitable for navigating the Polar seas at that season of the year, the leader was compelled to abandon the attempt, and arrived at Sydney on 1st May, 1911, where the exploration party will stay until, perhaps, a more suitable vessel and better equipment are obtained, when another effort will be made to reach the South Pole.

DAYLIGHT SAVING.

The Select Committee of the Legislative Assembly appointed to inquire into the daylight-saving question held its first meeting on the 6th July, 1911.

From the evidence tendered to the Committee, it may be assumed that the report to be presented to Parliament will be most interesting and valuable.

CONSTITUTION AND GOVERNMENT.

THE people of New South Wales enjoy the advantages of a most liberal Constitution. The principles of representative government are conserved, and equal privileges are bestowed on all citizens by the extensive franchise, individual liberty being as freely maintained as in any other civilised community.

The beginning of self-government is found in the first Legislative Council, of five members which met 25th August, 1824, to assist the Governor in his administration. The membership of this Council was afterwards extended, but the mode of government was found inefficient in directing the progress of the colony, and the expansion of its commercial and agricultural interests. In 1843 the people were given direct representation in the Legislature by means of an Imperial Act, which constituted a Legislative Council of thirty-six members—twelve of whom were nominated by the Crown and twenty-four elected by the people.

This system of government did not, however, give satisfaction, and constant agitation for a larger measure of self-government gained strength with the rapid increase of population, in consequence of the gold discoveries. In 1851 an Imperial Act was passed, which gave authority to the Council to prepare a Constitution for New South Wales, and responsible Government was established under an Imperial Act passed in 1855, the first elective Parliament being opened on the 22nd May, 1856.

The Legislature was formed on the model of the British Parliament, and consists of two Houses of Parliament—the Legislative Council and the Legislative Assembly—whose enactments are subject to the approval of the Governor, as representative of the King. Under the Constitution Act the Legislature has power to make laws for the peace, welfare, and good government of New South Wales, provided that all bills for appropriating any part of the public revenue, or for imposing any new rate or tax, shall originate in the Legislative Assembly. Since 1901 the powers of Parliament are subject to the restrictions of the Commonwealth of Australia Constitution Act.

THE GOVERNOR.

The Governor is the representative of the British Sovereign, and is appointed by the Imperial Government.

As representative of the Crown, he has power to assent to Acts of Parliament, or to withhold the assent pending reference to the Imperial Government, and there are certain classes of bills to which he is bound to refuse Royal assent. He may summon his own Executive Council, appoint Judges, Justices of the Peace, Commissioners, and other necessary officers and Ministers, and may remove these officials from their positions. The prerogative of mercy is vested in him, but is never exercised except with the advice of the Executive Council.

The Governor may appoint members of the Legislative Council, and summon, prorogue, or dissolve any Parliament. In the exercise of these functions he is in general guided by the advice of the Executive Council, but in special circumstances acts at his own discretion, especially with regard to dissolution of Parliament.

The term of office for which the Governor is appointed is five years, and his salary (£5,000 per annum), with certain allowances for his staff, are provided by the Constitution out of the revenues of the State.

The present Governor is Baron Chelmsford, K.C.M.G. The succession of Governors from the foundation of New South Wales to the present time, is given in the following statement:—

SUCCESSION OF GOVERNORS.

	From	To
Captain A. Phillip, R.N. ...	26 Jan., 1788	10 Dec., 1792
Major F. Grose (Lieutenant-Governor) ...	11 Dec., 1792	12 Dec., 1794
Captain W. Paterson, N.S.W. Corps (Lieutenant-Governor) ...	13 Dec., 1794	1 Sept., 1795
Captain J. Hunter, R.N. ...	7 Sept., 1795	27 Sept., 1800
Captain P. G. King, R.N. ...	28 Sept., 1800	12 Aug., 1806
Captain W. Bligh, R.N. ...	13 Aug., 1806	26 Jan., 1808
During Governor Bligh's suspension—		
Major G. Johnsten, N.S.W. Corps ...	26 Jan., 1808	28 Dec., 1809
Lieutenant-Colonel J. Foveaux, N.S.W. Corps ...		
Colonel W. Paterson, N.S.W. Corps ...	1 Jan., 1810	30 Nov., 1821
Major-General L. Macquarie ...		
Major-General Sir T. Brisbane, K.C.B. ...	1 Dec., 1821	30 Nov., 1825
Lieutenant-General Ralph Darling ...	19 Dec., 1825	21 Oct., 1831
Major-General Sir Richard Bourke, K.C.B. ...	3 Dec., 1831	5 Dec., 1837
Sir George Gipps, Knt. ...	24 Feb., 1838	11 July, 1846
Sir Charles A. Fitzroy, K.C.B., K.H. ...	2 Aug., 1846	17 Jan., 1855
Sir William Thomas Denison, K.C.B. ...	20 Jan., 1855	22 Jan., 1861
The Right Honorable Sir John Young, K.C.B., G.C.M.G. ...	22 Mar., 1861	24 Dec., 1867
The Right Honorable the Earl of Belmore, P.C. ...	8 Jan., 1868	22 Feb., 1872
Sir Hercules George Robert Robinson, G.C.M.G. ...	3 June, 1872	19 Mar., 1879
The Right Honorable Sir Augustus William Frederick Spencer Loftus, P.C., G.C.B. ...	4 Aug., 1879	9 Nov., 1885
The Right Honorable Baron Carrington, P.C., G.C.M.G. ...	12 Dec., 1885	1 Nov., 1890
The Right Honorable the Earl of Jersey, P.C., G.C.M.G. ...	15 Jan., 1891	28 Feb., 1893
The Right Honorable Sir Robert William Duff, P.C., G.C.M.G. ...	29 May, 1893	15 Mar., 1895
The Right Honorable Viscount Hampden, G.C.M.G. ...	21 Nov., 1895	5 Mar., 1899
The Right Honorable Earl Beauchamp, K.C.M.G. ...	18 May, 1899	30 April, 1901
Admiral Sir H. H. Rawson, R.N., G.C.B. ...	27 May, 1902	27 May, 1909
The Right Honorable Baron Chelmsford, K.C.M.G. ...	28 May, 1909	Still in office.

During the absence of the Governor from the State, and during the intervals between the departure of the Governor and the arrival of his successor, the duties are performed by a Lieutenant-Governor.

THE LÉGISLATIVE COUNCIL.

The Legislative Council must consist of at least twenty-one members, who are nominated by the Governor under the authority of the Crown. Adult male British subjects may be appointed, except members of the Federal Parliament or of the State Legislative Assembly. Members are appointed for life, and do not receive any remuneration for their services, but are allowed to travel free on the State railways and tramways. A member forfeits his seat if absent without leave from two successive sessions, if subject of a foreign power, or convicted of a crime, or becoming a public contractor, or bankrupt, and he may resign at any time. The President receives a salary of £750 per annum, and the Chairman of Committees £470 per annum. The number of Councillors at present is fifty-one.

THE LEGISLATIVE ASSEMBLY.

The Legislative Assembly consists of ninety members, elected by the people. Every member must be an adult male British subject, and entitled to a vote at the Parliamentary elections. Members of the Federal Legislature and of the Legislative Council are disqualified for membership, as well as persons holding non-political offices of profit under the Crown, and State pensioners. Each member receives the sum of £300 per annum by way of

reimbursement for expenses incurred in the discharge of Parliamentary duties, is allowed to travel free on the State railways and tramways, and has free transmission of correspondence.

The seat of a member becomes vacant if the member be absent without permission for a whole session of the legislature, becomes bankrupt, a subject of a foreign power, or convicted of a crime. The Speaker of the Legislative Assembly receives a salary of £1,000 per annum, and the Chairman of Committees, £740 per annum.

The Parliament may be dissolved at the discretion of the Governor, if the Government is defeated in the Assembly, otherwise it exists for three years. Prior to 1874 the limit of duration was five years.

The Constitution Act makes no distinction between the powers and privileges of the two Houses of Parliament, but no inconvenience has been felt on this score, since it is tacitly agreed that the procedure in each House shall be conducted according to that of its prototype in the Imperial Parliament.

A list of the Parliaments since Responsible Government was established is shown below:—

Parliament.	Opened.	Dissolved.	Duration.			No. of Sessions.
			yr.	moth.	dy.	
First	22 May 1856...	19 Dec. 1857...	1	6	28	2
Second	23 March 1858...	11 April 1859...	1	0	19	2
Third	30 Aug. 1859...	10 Nov. 1860...	1	2	11	2
Fourth	10 Jan. 1861...	10 Nov. 1864...	3	10	0	5
Fifth	24 Jan. 1865...	15 Nov. 1869...	4	9	22	6
Sixth	27 Jan. 1870...	3 Feb. 1872...	2	0	7	3
Seventh	30 April 1872...	28 Nov. 1874...	2	6	28	4
Eighth	27 Jan. 1875...	12 Oct. 1877...	2	8	16	3
Ninth	27 Nov. 1877...	9 Nov. 1880...	2	11	12	3
Tenth	15 Dec. 1880...	23 Nov. 1882...	1	11	8	3
Eleventh	3 Jan. 1883...	7 Oct. 1885...	2	9	4	6
Twelfth	17 Nov. 1885...	26 Jan. 1887...	1	2	9	2
Thirteenth	8 March 1887...	19 Jan. 1889...	1	10	11	3
Fourteenth	27 Feb. 1889...	6 June 1891...	2	3	7	4
Fifteenth	14 July 1891...	25 June 1894...	2	11	11	4
Sixteenth	7 Aug. 1894...	5 July 1895...	0	10	29	1
Seventeenth	13 Aug. 1895...	8 July 1898...	2	10	26	4
Eighteenth	16 Aug. 1898...	11 June 1901...	2	9	26	5
Nineteenth	23 July 1901...	16 July 1904...	2	11	24	4
Twentieth	23 Aug. 1904...	12 July 1907...	2	10	20	4
Twenty-first	2 Oct. 1907...	14 Sept. 1910...	2	11	12	5
Twenty-second	15 Nov. 1910...	.....	.....	.....	.....	...

The first Legislative Assembly, elected in 1856, consisted of 54 members. Votes were then allowed to all male adult British subjects who, at the time of registration of electors and for six months previously to that date, owned freehold estate valued at £100, or occupied building or lodging, or land under lease of three years, valued at £10. Holders of Government pastoral licenses and persons who had a yearly salary of £100, or paid £40 per annum for board and lodging, were also entitled to vote. Electors were allowed a vote in each electorate in which they possessed the necessary qualifications. In 1858 the membership of the Assembly was increased to 72, and the franchise was given to every male adult British subject who for six months previously to the collection of the rolls had resided in the district and held property of the clear value of £100 or annual value of £10, or occupied building valued £10 per annum, or held Crown lease or license for pastoral purposes. Holders of miners' rights were allowed to vote in "goldfields" electorates. Officers of military or police services were disqualified, as well as persons in receipt of public charity.

An Electoral Act was passed in 1880, by which 108 members were elected, and provision was made for increased representation. Under this provision the number of members in 1891 had increased to 141, elected in 74 districts. In the year 1893 there was a most important change in the system of Parliamentary representation. The State being then divided into 125 electorates, each represented by one member. The franchise was remodelled by the introduction of universal manhood suffrage, and the principle of allowing each elector to vote only in one electorate equalised the privileges of citizenship. A vote was given to every male adult who had resided continuously for one year in the State, provided that he was a British subject and became enrolled in the electoral district, in which he had resided for three months previously to the election. The disqualification of the police was removed in 1896, and in 1903 the franchise was extended to women, thus establishing adult suffrage, the most liberal type of representation in the world.

The Parliamentary Elections Act, passed in 1911, provides for a reduction in the residential qualification to six months in the Commonwealth, three months in the State, and one month in the electoral district, and for the extension of the franchise to the Military and Naval service. The hours of polling have also been extended from 6 p.m. to 7 p.m. A new feature is the introduction of the absent voter principle. Electors absent from their districts may record a vote for the electorate for which they are enrolled at any polling-place within the State, on making a declaration. Provision is also made for an annual Police collection and revision of Rolls.

The Parliamentary Elections (Second Ballot) Act, passed in 1910, provides that a candidate shall not be deemed to be elected as a member of the State Legislative Assembly unless he has received an absolute majority—that is, more than half the number of valid votes recorded. If, as a result of the first ballot, a candidate has not received an absolute majority a second ballot must be taken between the first two candidates on the list. This principle was introduced at the general election in October, 1910, and second ballots were taken in three electorates. The votes recorded at the first ballots in these districts have been excluded from the following table which shows the voting at the seven elections held since plural voting was abolished:—

Parliament.		Voters on Roll.	Electors to a Member.	Total Members returned.	Members unopposed.	Contested Electorates.				
Year.	Number.					Electors on Roll.	Votes recorded.	Percentage of Votes recorded.	Informal Votes.	Percentage of Informal Votes.
1894	16th ...	298,817	2,390	125	1	254,105	204,246	80·38	3,310	1·62
1895	17th ...	267,458	2,139	125	8	238,233	153,034	64·24	1,354	0·88
1898	18th ...	324,339	2,595	125	3	294,481	178,717	60·69	1,638	0·92
1901	19th ...	346,184	2,769	125	13	270,861	195,359	72·13	1,534	0·79
1904	20th {	Males... 363,062	7,661	90	2 {	304,396	226,057	74·26	3,973	0·59
		Females 326,428				262,433	174,538	66·51		
1907	21st {	Males... 392,845	8,288	90	5 {	370,715	267,301	72·10	13,543	2·87
		Females 353,055				336,680	204,650	60·78		
1910	22nd {	Males... 458,626	9,641	90	3 {	444,242	322,199	72·53	10,393	1·78
		Females 409,069				400,139	262,154	65·52		

Making due allowance for obstacles to voting, especially in sparsely-settled districts, these figures indicate a serious abstention on the part of a large percentage of the electors, and particularly in the case of the women.

At the first election after their enfranchisement only 66·5 per cent. recorded their votes, in 1907, 60·8 per cent., and at the last election 65·5 per cent. voted, so that 34·5 per cent. disregarded their franchise. In the case of the males, the highest proportion of votes, 80·4 per cent., was recorded at the first election shown in the table. At this election the interest of the people was excited by a strenuous contest on the question of fiscal reform, but at the next two elections there was no definite issue at stake, as negotiations for federation with the other States were in progress. At the following elections the percentage of votes increased, and in 1910 the figure was 72·5 per cent. Thus, although the facilities for voting had been greatly improved, there were still more than one-fourth of the male electors who did not vote.

The number of informal votes was very high at the election of 1907, being nearly 3 per cent. of the total votes recorded; but at the latest election it had decreased to 1·78 per cent. In 1907 a change was made in the method of marking the ballot-papers which, no doubt, accounted for the increased percentage of informal votes.

After the federation of the Australian States the question of reducing the membership of the State Parliament was submitted to the electors, and a referendum in 1904 resulted in its reduction to 90 representatives. The following table shows the average number of persons represented by each member of the Assembly and the proportion of the population enrolled on the electoral lists at various dates on which the membership or franchise has been altered since the opening of the first Parliament and at each year of election since 1901:—

Year of Election.	Number of Members.	Population per Member.	Percentage of Population Enrolled.
1856	54	5,200	15·8
1858	72	4,500	22·3
1880	108	6,900	25·2
1885	122	7,800	24·5
1891	141	8,100	26·7
1894	125	9,800	24·3
1901	125	10,900	25·3
1904	90	16,000	47·9
1907	90	17,000	48·6
1910	90	18,000	53·4

The number of distinct electors cannot be ascertained for any period prior to the year 1894, and the figures in the last column have been calculated on the total number of votes to which the electors on the roll were entitled; they are, therefore, somewhat in excess of the actual proportions. At the census of 1901 the percentage of adult males in the total population was about 28, and of adults, males and females, 51·7. At the election in 1901 the proportion of the population enrolled was 25 per cent., and after the Women's Franchise Act was passed it rose to 48 per cent. In 1910 the proportion was 53 per cent. On the 4th August, 1911, three Electoral Districts Commissioners were appointed for the purpose of the redistribution of electorates in accordance with the Parliamentary Electorates and Elections Act, 1902, and the Acts amending the same.

THE EXECUTIVE COUNCIL.

The leader of the Government in the Legislative Assembly forms from its members a Cabinet of eight responsible Ministers, who are placed in charge of the various Government departments, and conduct the general business

of Parliament. These Ministers and the representative of the Government in the Legislative Council constitute the Executive Council, under the presidency of the Governor. If the Government be defeated on an important issue in the Assembly, the members of the Cabinet tender their resignations, and the Governor decides whether the House shall be dissolved or a Cabinet formed by a new leader.

MINISTRIES.

The various Ministries which have held office since the establishment of Responsible Government, together with the duration in office of each, are shown below:—

No.	Ministry.	From—	To—	Duration.	
				months.	days.
1	Donaldson	6 June 1856	25 Aug. 1856	2	20
2	Cowper	26 Aug. 1856	2 Oct. 1856	1	8
3	Parker	3 Oct. 1856	6 Sept. 1857	11	4
4	Cowper	7 Sept. 1857	26 Oct. 1859	25	20
5	Forster	27 Oct. 1859	8 Mar. 1860	4	13
6	Robertson	9 Mar. 1860	9 Jan. 1861	10	1
7	Cowper	10 Jan. 1861	15 Oct. 1863	33	6
8	Martin	16 Oct. 1863	2 Feb. 1865	15	18
9	Cowper	3 Feb. 1865	21 Jan. 1866	11	19
10	Martin	22 Jan. 1866	26 Oct. 1868	33	5
11	Robertson	27 Oct. 1868	12 Jan. 1870	14	17
12	Cowper	13 Jan. 1870	15 Dec. 1870	11	3
13	Martin	16 Dec. 1870	13 May 1872	16	29
14	Parkes	14 May 1872	8 Feb. 1875	32	26
15	Robertson	9 Feb. 1875	21 Mar. 1877	25	13
16	Parkes	22 Mar. 1877	16 Aug. 1877	4	26
17	Robertson	17 Aug. 1877	17 Dec. 1877	4	1
18	Farnell	18 Dec. 1877	20 Dec. 1878	12	3
19	Parkes	21 Dec. 1878	4 Jan. 1883	48	15
20	Stuart	5 Jan. 1883	6 Oct. 1885	33	2
21	Dibbs	7 Oct. 1885	21 Dec. 1885	2	15
22	Robertson	22 Dec. 1885	25 Feb. 1886	2	4
23	Jennings	26 Feb. 1886	19 Jan. 1887	10	22
24	Parkes	20 Jan. 1887	16 Jan. 1889	23	28
25	Dibbs	17 Jan. 1889	7 Mar. 1889	1	19
26	Parkes	8 Mar. 1889	22 Oct. 1891	31	15
27	Dibbs	23 Oct. 1891	2 Aug. 1894	33	11
28	Reid	3 Aug. 1894	13 Sept. 1899	61	11
29	Lyne	14 Sept. 1899	27 Mar. 1901	18	14
30	See	28 Mar. 1901	14 June 1904	38	18
31	Waddell	15 June 1904	29 Aug. 1904	2	15
32	Carruthers	30 Aug. 1904	1 Oct. 1907	37	3
33	Wade	2 Oct. 1907	20 Oct. 1910	36	19
34	McGowen	21 Oct. 1910	Still in office.	.....

The McGowen Ministry, which is at present in office, consists of the following members:—

Premier and Colonial Treasurer	Hon. J. S. T. MCGOWEN.
Attorney-General and Minister of Justice	Hon. W. A. HOLMAN.
Secretary for Lands	Hon. G. S. BREEBY.
Colonial Secretary	Hon. D. MACDONELL.
Minister for Agriculture	Hon. J. L. TREFLE.
Minister of Public Instruction, and Minister for Labour and Industry	Hon. A. C. CARMICHAEL.
Secretary for Public Works	Hon. A. GRIFFITH.
Secretary for Mines	Hon. A. EDDEN.
Vice-President of the Executive Council	Hon. F. FLOWERS.

The following statement shows the cost of Parliamentary Government in New South Wales during the years ended 30th June, 1909 and 1910 :—

Head of Expenditure.					1909.	1910.
Governor—					£	£
Governor's salary	...	...	...	...	5,000	5,000
Private Secretary's salary	...	...	...	...	350	376
Aide-de-Camp	...	...	...	...	412	324
Repairs and maintenance of Governor's Residences...	...	...	...	...	2,843	972
Miscellaneous	...	...	...	...	71	...
Total	...	...	...	...	£ 8,676	6,672
Executive Council—					£	
Salaries of Officers	...	...	...	...	500	520
Ministry—						
Salaries of Ministers	...	...	...	...	11,040	11,040
Other expenses	...	...	...	...	1,011	856
Total	...	...	...	...	£ 12,051	11,896
Parliament—						
The Legislative Council—						
Railway passes	...	...	...	...	5,894	6,675
Other expenses	...	...	...	...	470	125
The Legislative Assembly—						
Allowances to Members	...	...	...	...	24,292	24,122
Railway passes	...	...	...	...	9,956	10,099
Other expenses	...	...	...	...	1,199	1,622
Miscellaneous—						
Salaries of Officers and Staff	...	...	...	...	26,293	25,928
Printing	...	...	...	...	6,978	7,001
Hansard	...	...	...	...	4,666	4,683
Library	...	...	...	...	702	666
Refreshment Rooms	...	...	...	...	412	400
Water, power, light, and heat	...	...	...	...	731	673
Postage and stationery	...	...	...	...	1,665	723
Fees and expenses of Parliamentary Standing Committee on Public Works.	...	...	...	...	3,978	5,926
Miscellaneous	...	...	...	...	1,295	680
Total	...	...	...	...	£ 88,531	89,323
Electoral Offices—						
Salaries of Officers and Staff	...	...	...	...	1,809	773
Other expenses	...	...	...	...	2,835	15,366
Total	...	...	...	...	£ 4,644	16,139
Cost of By-elections					£ Nil.	818
Royal Commissions and Select Committees—						
Fees of Members	...	...	...	...	1,260	...
Other expenses of Members	...	...	...	...	1,203	...
Miscellaneous	...	...	...	...	6,393	1,477
Total	...	...	...	...	£ 8,856	1,477
GRAND TOTAL					£ 123,258	126,845

The cost of the Legislative Chambers in 1909-10 was £89,323, or 74 per cent. of the total amount expended on Parliamentary Government during the year, which was £126,845, or 1s. 7d. per head of population. This amount should be increased by about £13,000; that is, one-third of the cost of the elections held in 1907, which amounted to £38,863. The expenditure incurred on account of the General Election held on 14th October, 1910, cannot yet be stated.

THE COMMONWEALTH.

The question of establishing a Federal Legislature, to deal with the common interests of the colonies, received attention when arrangements were being made for the separation of Victoria from New South Wales and

for the self-government of the Australian colonies upwards of sixty years ago. No direct result was obtained, but the idea was revived from time to time by various conferences and Parliamentary committees. The first practical and definite step towards federation was taken in 1890, when a conference of representatives from the seven Australasian colonies was held in Melbourne, and arrangements were made for a Federal Convention of members appointed by the various Parliaments to draft an adequate scheme for a Federal Constitution. The Draft Bill produced by this Convention in 1891 was intended for discussion in the State Parliaments, but it lapsed on account of the lack of enthusiasm on the part of the people. During the financial and commercial depression of succeeding years the necessity for federation was severely felt, and the movement became more popular. Another conference was held in Hobart in 1895, and as a result a Constitution was drawn up by elected representatives of New South Wales, Victoria, South Australia, Western Australia, and Tasmania, and submitted to the electors by means of a referendum in 1898. The Bill was accepted in Victoria, South Australia, and Tasmania; in New South Wales the majority of votes secured was insufficient; and in Western Australia the referendum was deferred, as the Enabling Bill of that State made the acceptance of the Constitution by New South Wales a necessary condition.

The Constitution Bill was amended at a conference in 1899, and was subsequently accepted by each of the six States of Australia, and the formal inauguration of the Commonwealth took place on the 1st January, 1901, the first day of the twentieth century. The first Parliament of the Commonwealth was opened on 9th May, 1901.

In the Federal Legislature the Crown is represented by the Governor-General of Australia, who receives a salary of £10,000 per annum. As representative of the King he is the Commander-in-Chief of the Naval and Military Forces. In the Government of the Commonwealth he is assisted with the advice of an Executive Council, consisting of seven responsible Ministers. The present Governor-General and Commander-in-Chief is the Right Hon. Baron Denman, P.C., G.C.M.G., K.C.V.O. There are two elective Chambers—the Senate and the House of Representatives.

The Senate consists of thirty-six members, six of whom are elected by each State voting as one electorate. The term of service of a Senator is six years; but, in accordance with the Constitution Act, the seats of half the number chosen at an election of a new Senate become vacant at the expiration of three years. An election is held triennially to fill the vacancies then occurring by effluxion of time.

The Constitution provides that the House of Representatives shall, as far as practicable, contain twice as many members as the Senate, the number chosen by the several States being in proportion to the respective numbers of their people; as it is also provided that no State shall be represented by less than five, there are now seventy-five members in this House. Representation of the States is on a population basis, the number from New South Wales being at present 27.

The House of Representatives is liable to dissolution at the Governor-General's discretion if the Ministry loses its majority, otherwise it exists for three years. In the event of the failure of the Senate and House of Representatives to agree on the subject of any proposed law, the Governor-General may dissolve both Chambers simultaneously.

If, after dissolution, the Houses still disagree, the Governor-General may convene a joint sitting of the members of both Houses to deliberate and vote upon the proposed law, the resolutions to be carried by an absolute majority of all the members.

The Federal Parliament is empowered to make laws for various matters affecting the general welfare, the principal being trade and commerce, taxation, bounties, borrowing, postal, telegraphic and telephonic services, defence, lighthouses, astronomical and meteorological observations, quarantine, fisheries, statistics, currency, banking, insurance, bills of exchange, bankruptcy, copyright and patents, naturalisation, marriage, divorce, pensions, migration, external affairs, and railways.

In order to alter the Constitution the law for the proposed alteration must be submitted to the electors not less than two nor more than six months after its passage through both Houses of Parliament, and must be approved by a majority of electors voting, in a majority of the States, as well as in the whole Commonwealth.

The qualifications of members and electors are the same for both Houses. Members must be adult British subjects, natural-born or naturalised for five years, eligible to vote, and resident in Australia for three years; they receive allowances at the rate of £600 per annum, and the seat of any member becomes vacant if he is absent without leave for two consecutive months of any session.

Adult British subjects are allowed to vote who have lived in the Commonwealth for six months continuously prior to the election. Aboriginal natives of Australia, Asiatics, Africans, and Pacific Islanders, except natives of New Zealand, are disqualified unless entitled to vote at the election of a State Legislative Assembly.

The following table shows the votes polled at the elections of Senators in New South Wales:—

Election. Year.	Electors Enrolled.		Electors to whom Ballot Papers were issued.		Informal Ballot Papers.	Percentage of Voters to Electors Enrolled.		
	Males.	Females.	Males.	Females.		Males.	Females.	Total.
1901 ...	329,093	...	220,573	...	38,674	67·02	...	67·02
1903 ...	360,285	326,764	189,877	134,487	15,796	52·70	41·16	47·21
1906 ...	392,077	345,522	229,654	151,682	28,016	58·57	43·90	51·70
1910 ...	444,269	390,393	301,167	211,635	24,213	67·79	54·21	61·44

The votes recorded in New South Wales at the elections of members of the House of Representatives were as follows:—

Election. Year.	Electors Enrolled (Contested Divisions only).		Electors to whom Ballot Papers were issued.		Informal Ballot Papers.	Percentage of Voters to Electors Enrolled.		
	Males.	Females.	Males.	Females.		Males.	Females.	Total.
1901 ...	315,962	...	215,105	...	4,070	68·08	...	68·08
1903 ..	303,254	274,763	164,133	118,381	7,834	54·12	43·08	48·68
1906 ...	363,723	314,777	216,150	141,227	11,705	59·43	44·87	52·67
1910 ...	431,702	379,927	294,049	207,868	8,002	68·11	54·71	61·84

Although there was an increase in the percentage of voters at the last election, a very large proportion of the people enrolled—one-third of the men and nearly half the women—failed to exercise their franchise.

Referenda.

In 1910 it was resolved to submit to the electors two proposals to alter the Commonwealth Constitution.

The object of the first proposal was to extend the legislative powers of the Federal Parliament in relation to trade and commerce, corporations, industrial matters, and trusts, and monopolies.

The clauses of the Constitution affected and the proposed alterations were as follows:—

“Section 51. The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to—

(i) Trade and commerce with other countries, and among the States.”

Under this section, the powers of the Commonwealth Parliament are limited by the exclusion of the trade and commerce which does not extend beyond the boundaries of any one State. It was proposed to remove this limitation by omitting the words, “With other countries and among the States.”

With regard to corporations, it was proposed to omit paragraph xx of section 51: “(xx) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth,” and to substitute the following:—

“Corporations, including—

“(a) The creation, dissolution, regulation, and control of corporations;

“(b) Corporations formed under the law of a State (except any corporation formed solely for religious, charitable, scientific, or artistic purposes, and not for the acquisition of gain by the corporation, or its members), including their dissolution, regulation, and control; and

“(c) Foreign corporations, including their regulation and control.”

The proposed extension in regard to industrial matters was to be effected by the omission of paragraph xxxv of section 51: “(xxxv) Conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State,” and the insertion of the words:—

“Labour and employment, including—

“(a) The wages and conditions of labour and employment in any trade, industry, or calling; and

“(b) The prevention and settlement of industrial disputes, including disputes in relation to employment on or about railways the property of any State.”

The proposal also included the addition to this section of the following paragraph:—

“Combinations and monopolies in relation to the production, manufacture, or supply of goods or services.”

These alterations to section 51 were embodied in the proposed law Constitution Alteration (Legislative Powers), 1910, and submitted to the electors on 26th April, 1911. The following statement shows the result of the referendum:—

State.	Votes recorded.					Majority against Proposed Alteration.	Percentage of total Electors to whom Ballot Papers were issued.
	For.	Against.	Informal.	Ballot Papers issued, but unaccounted for.	Total.		
New South Wales..	135,968	240,605	7,396	219	384,188	104,637	44.25
Victoria ...	170,288	270,390	7,554	334	448,566	100,102	62.01
Queensland ...	69,552	89,420	3,002	161	162,135	19,868	55.34
South Australia ...	50,358	81,904	1,374	166	133,802	31,546	61.94
Western Australia.	33,043	27,185	870	384	61,482	*5,858	44.33
Tasmania ...	24,147	33,200	673	33	58,053	9,053	56.73
Commonwealth..	483,356	742,704	20,869	1,297	1,248,226	259,348	53.31

* Majority in favour of alteration.

Except in the case of Western Australia, this proposal was rejected in each State; consequently it was rejected in the Commonwealth as a whole.

The second proposal to alter the Constitution was the addition of the following section:—

“51A. When each House of the Parliament, in the same session, has by resolution declared that the industry or business of producing, manufacturing, or supplying any specified goods, or of supplying any specified services, is the subject of a monopoly, the Parliament shall have power to make laws for carrying on the industry or business by or under the control of the Commonwealth, and acquiring for that purpose on just terms any property used in connection with the industry or business.”

This proposal also was rejected by the electors of the Commonwealth, and of each State, except Western Australia, at the referendum on 26th April, 1911. The voting was as follows:—

State.	Votes recorded.					Majority against	Percentage of total Electors to whom Ballot Papers were issued.
	For.	Against.	Informal.	Ballot Papers issued, but unaccounted for.	Total.		
New South Wales..	138,237	238,177	7,618	156	384,188	99,940	44.25
Victoria ...	171,453	268,743	8,041	329	448,566	97,290	62.01
Queensland ...	70,259	88,472	3,200	204	162,135	18,213	55.34
South Australia ...	50,835	81,479	1,344	144	133,802	30,544	61.94
Western Australia.	33,592	26,561	898	431	61,482	*7,031	44.33
Tasmania ...	24,292	32,960	753	48	58,053	8,668	56.73
Commonwealth..	488,668	736,392	21,854	1,312	1,248,226	247,724	53.31

* Majority in favour of alteration.

The following statement shows the votes recorded in the State of New South Wales and in the Commonwealth at the referenda which have been taken in relation to the Federal Constitution :—

State of New South Wales.

Date.	Referendum.	Votes recorded.			
		For.	Against.	Result.	Majority.
1898	Federation	71,595	66,228	Accepted	5,367
1899	Federation	107,420	82,741	Accepted	24,679
1906	Constitution Alteration (Senate Elections).	286,888	55,261	Accepted	231,627
1910	Financial Agreement ...	227,650	253,107	Rejected	25,457
1910	State Debts	159,275	318,412	Rejected	159,137
1911	Legislative Powers...	135,968	240,605	Rejected	104,637
1911	Monopolies	133,237	238,177	Rejected	99,940

Total for Commonwealth of Australia.

Date.	Referendum.	Votes recorded.			
		For.	Against.	Result.	Majority.
1898	Federation	219,712	108,363	Accepted	111,349
*1899	Federation	422,788	161,077	Accepted	261,711
1906	Constitution Alteration (Senate Elections).	774,011	162,470	Accepted	611,541
1910	Financial Agreement ...	645,514	670,838	Rejected	25,324
1910	State Debts... ..	715,053	586,271	Accepted	128,782
1911	Legislative Powers...	483,356	742,704	Rejected	259,348
1911	Monopolies	488,668	736,392	Rejected	247,724

* Includes Western Australian Referendum on the subject in 1900.

In 1898 the question of federation was put to the people in the States of New South Wales, Victoria, South Australia, and Tasmania. In the three last-named it was passed; but in New South Wales it failed to obtain the majority of 80,000 votes required by the Enabling Bill of that year. At the second referendum for federation, in 1899, the vote was also taken in Queensland, and the figures for Australia shown above included the votes in Western Australia, where the referendum did not take place until 1900.

The referendum in 1906 decided to extend to 30th June, 1910, the service of Senators whose places would have become vacant in December, 1909, and also that the term of service of a Senator should begin on the first day of July. This referendum being taken on the same day as the Commonwealth General Election, no doubt accounts for the large number of votes recorded.

The two proposals for altering the Constitution referred in 1910 relate to financial arrangements between the States and the Commonwealth. The one, to give effect to an agreement regarding the amount of revenue which should be returned to the States, was rejected, and the other, to enable the Commonwealth to take over all the debts of the States, was passed by a majority in the Commonwealth as a whole, and in all the States except New South Wales. Previous to this alteration the Commonwealth was empowered to take over only such debts as had been incurred prior to federation.

The referenda of 1911 resulted in the rejection of the proposals, which were for the purpose of extending the legislative powers of the Federal Government regarding trade and industrial matters, and to empower the Commonwealth to take control of industries subject to monopolies.

Seat of Federal Government—Ordinance.

The agreement under section 125 of the Federal Constitution Act, between the State of New South Wales and the Commonwealth, for the surrender and acceptance of territory in the Canberra district for the seat of Federal Government has been ratified, and an ordinance issued on the 22nd December, 1910, for the Provisional Government of the Territory. All laws hitherto in force in the Territory (except those imposing duties on estates of deceased persons) will remain in force, and continue to be administered by the State authorities. All revenue, except Public Instruction fees, will belong to the Commonwealth. The authority of State magistrates, gaolers, and police will continue, and all offenders will be tried in the Courts of the State. Licenses to sell intoxicating liquors will not be granted, and existing licenses may be renewed for the same premises only.

ROYAL COMMISSIONS OF INQUIRY.

The important Royal Commissions which have been reported to the Parliament of New South Wales between the years 1856 and 1910, are as follow :—

- Accident at Bulli Colliery (1887).
- Accident at Central Mine, Broken Hill (1903).
- Accident at Ferndale Colliery (1885-6).
- Accident at Lithgow Valley Colliery (1885-6).
- Administration of the Lands Department (1906), (1907).
- Administration of Weights and Measures Office (1906).
- Alleged Tramway Frauds (1888-9).
- Baldwin Locomotive Engines (1892-3).
- Bayview House Asylum for Insane, Cook's River (1894-5).
- Casual Labour Board (1889).
- Causes of Fatal Accident on Great Southern Railway (1858).
- Case of Regina v. George Dean (1895).
- Case of William Creswell (1900).
- Charges against Medical Attendant and Matron of Mudgee Hospital (1897).
- Charges by Mr. Levien against Messrs. Sleath and Ferguson, M.A.P. (1898).
- Charges against Mr. Eddy, Chief Commissioner for Railways (1892-3).
- Charges against Mr. W. M. Fehon (1889).
- Charities :—Working and Management of Public Charities (1873-4); Institution Deaf and Dumb and Blind, Strathfield (1898); Benevolent Society (1898); Hospitals (1899).
- Chinese Gambling and Charges of Bribery against Members of the Police Force (1891-2).
- City Railway Extension (1897).
- Civil Service (1894-5).
- Claims of Members of New South Wales Contingents in South Africa (1906), (1907).
- Coal Mines Regulation Bill (1895).
- Communication between Sydney and North Sydney (1909).
- Conduct of Hon. J. H. Young during Election for the Hastings and the Macleay (1898).

Royal Commissions—*continued*.

- Conservation of Water (1885-6), (1887).
 Conservation and Distribution of Water in the Murray River Basin (1902).
 Construction of Public Halls and other Places of Public Amusement and Concourse (1887).
 Contagious Diseases among Rabbits (1889).
 Contracts of Messrs. Carter, Gummow, & Co. (1897).
 Crown Tenants of the Western Division (1901).
 Dangers to Vessels carrying Coal (1900).
 Decline of Birth-rate and Mortality of Infants in New South Wales (1904).
 Deeds Branch, Registrar-General's Department (1894).
 Defences of New South Wales (1876-7), (1881).
 Defence Works, Bare Island (1891-2).
 Earth Subsidences at Newcastle (1908).
 Education—Primary and Secondary (1904).
 Extension of the Railway into the City, and the North Shore Bridge (1891-2).
 Fatal Accident at Broken Hill South Mine (1901).
 Fisheries (1894-5), (1889).
 Floods in the Hunter River District (1870-1).
 Forestry (1908).
 Friendly Societies (1883).
 Formation, Constitution, and Working of the Machine Shearers' and Shed Employees' Union, Industrial Union of Employees (1905).
 Government Docks and Workshops, Cockatoo Island (1903).
 Harbour of Port Jackson (1866).
 Improvement of the City of Sydney and Suburbs (1909).
 Intoxicating Drink (1887-8).
 Land and Survey Departments (1878-9).
 Law Reform (1870-1).
 Lighthouses in the Australian Colonies (1856-7).
 Management of Berrima Gaol (1878-9).
 Management of Metropolitan Water Supply and Sewerage Board (1897).
 Management of Hunter River District Water Supply and Sewerage Board (1897).
 Management of Quarantine Station, North Head, and the Hulk "Far-away" (1882).
 Management and Working of the Customs Department (1867-8).
 McMyler Hoist at Newcastle (1909).
 Method of Testing Marine Steam Boilers (1868-9).
 Milburn Creek Copper Mining Company (1881).
 Municipal affairs, Wyalong (1902).
 Mount Kembla Colliery Disaster (1903).
 Noxious and Offensive Trades (1883).
 Opal Mining Industry at White Cliffs (1901).
 Oyster Culture (1876-7).
 Prospect Dam (1889).
 Public Service—General Post Office, Money Order Office, and Electric Telegraph Department (1890).
 Railway Administration (1885-6).
 Railway Bridges (1906).
 Saturday Half-Holiday (1909).
 Schemes for Extermination of Rabbits (1889), (1890).
 State of Crime in Braidwood District (1867-8).
 State and Prospect of the Fisheries of the Colony (1879-80).

Royal Commissions—*continued*.

- Statute Law Consolidation (1896), (1902).
- Strikes—Conflicts between Capital and Labour (1891–2).
- Sydney Water Supply (1868–9), (1902), (1903).
- Sydney Water Supply—Cataract Dam (1905).
- Treatment of Inmates of the Government Asylums at Rookwood and Newington (1903).
- Tuberculosis and other Diseases in Stock (1899).
- Working of the Gold-Fields Act, and the Water Supply on Gold Fields (1871–2).
- Working of Compulsory Conciliation and Arbitration Laws (1901).
- Working of Moore-street Improvement Acts (1901).
- Working of Quarries in the Albert Mining District (1897).
- Working of the Real Property Acts (1879–80).

ROYAL COMMISSIONS (Year 1911).

The Royal Commission on Decentralisation in Railway Transit furnished a Report in the year 1911, and the following Royal Commissions have been appointed :—

- Fire Brigades Acts, 1909 and 1910, and Administration of late Fire Brigades Board.
- Kentia Palm Seed trade of Lord Howe Island.
- Charges in connection with an arrest by Police Constables at Bathurst.
- Public Works Department—Certain matters in connection therewith.
- Keeping of Disorderly Houses at Newcastle.
- Supersession of Returning Officer, State Electoral District of Newtown.
- Dismissal of Public School Teacher at Kyamba.
- Consolidation Laws relating to Crown Lands in New South Wales.
- Shortage of Labour in New South Wales.
- Method of Working thick seams of Coal in the Maitland-Cessnock District.
- Food Supply, &c., of Sydney.
- Iron Industry of New South Wales.
- Stock Diseases (Tick Act, 1901).
- Electoral Districts Redistribution.

ADMINISTRATIVE ARRANGEMENTS.

The Administrative Arrangements for the Government of New South Wales are as under :—

The Premier.

The Premier is charged with—

- Departmental business connected with the two Houses of Parliament, including official publication of the debates.
- Foreign correspondence.
- Correspondence with—
 - (a) The Commonwealth, Colonial, and State Governments.
 - (b) The President of the Legislative Council and the Speaker of the Legislative Assembly.
 - (c) The Foreign Consuls.

Executive Council Office.

Agency-General.

Immigration and Tourist Bureau.

Departmental business connected with Norfolk Island.

The Chief Secretary.

The Chief Secretary is charged with—

Public Seal.
 Registration of Commissions under the Public Seal.
 Execution of Capital Sentences.
 Appointment of Magistrates.
 Business relating to Ecclesiastical Establishments.
 Issue of Licenses for Public Entertainments.
 Issue of Licenses for Private Hospitals.
 Issue of Racecourse Licenses.
 Medical Establishment, including the Officers appointed for the purposes of Vaccination, and the Medical Board.
 Institutions for the care and treatment of Inebriates.
 Institutions for the care and treatment of the Insane.
 Metropolitan and Country Hospitals.
 Charitable Institutions aided from the Consolidated Revenue.
 Department of Audit.
 Police Department.
 Public Health Department.
 Medical Inspector of Charities.
 Board of Fire Commissioners of New South Wales.
 Board for International Exchanges.
 Aborigines Protection Board.
 Registry of Friendly Societies and Trade Unions.
 Electoral Office.
 Bureau of Statistics.
 Bureau of Microbiology.
 Department of Fisheries.
 Master in Lunacy's Office.
 Dental Board.
 Departmental business connected with Lord Howe Island.
 Closed Cemeteries and Exhumation of Bodies for the purpose of Re-interment, &c.
 All matters of business not expressly assigned and confided to any other Minister.

The Administration of the following Acts:—

Aborigines Protection Act, 1909.
 Audit Act, 1902.
 Banks and Bank Holidays Act, 1898.
 Banks and Bank Holidays Act Amendment Act, 1899.
 Banks and Bank Holidays Further Amendment Act, 1906.
 Benevolent Society of New South Wales Act of 1902.
 Birds Protection Act, 1901.
 Bread Act, 1901.
 Building and Co-operative Societies Act, 1901.
 Butchers' Shops Sunday Closing Act, 1902.
 Careless Use of Fire Act, 1901.
 Careless Use of Fire (Amendment) Act, 1906.
 Cattle Slaughtering and Diseased Animals and Meat Act, 1902.
 City of Sydney Improvement Act.
 Constitution Act, 1902.
 Dairies Supervision Act, 1901.
 David Berry Hospital Act, 1906.
 Dental Hospitals Union Act, 1904.
 Dentists Act, 1900.
 Dentists (Amendment) Act, 1909.

The Chief Secretary—*continued*.

Destitute Children's Society Act, 1901.
 Diseased Animals and Meat (Amendment) Act, 1910.
 Dog and Goat Act, 1898.
 Electorates Redistribution Act, 1904.
 Federal Elections Act, 1900.
 Fire Brigades Act, 1909.
 Fire Brigades (Amendment) Act, 1910.
 Fisheries Act, 1902.
 Fisheries (Amendment) Act, 1910.
 Friendly Societies Act, 1899.
 Friendly Societies (Amendment) Act, 1900.
 Friendly Societies (Further Amendment) Act, 1901.
 Friendly Societies (Amendment) Act, 1906.
 Games, Wagers, and Betting-houses Act, 1901.
 Gaming and Betting Act, 1906.
 Gaming and Betting (Amendment) Act, 1906.
 Gaming and Betting (Amendment) Act, 1907.
 Hawkesbury Benevolent Society's Act of 1840.
 Hawkesbury Benevolent Society's Act Amendment Act of 1860.
 Hawkesbury Benevolent Society's (Amendment) Act, 1903.
 Homing Pigeons Protection Act, 1910.
 Indecent Publications Act, 1900.
 Indecent Publications Act Amendment Act, 1900.
 Inebriates Act, 1900.
 Inebriates (Amendment) Act, 1909.
 Influx of Criminals Prevention Act, 1903.
 Juvenile Smoking Suppression Act of 1903.
 Lunacy Act of 1898.
 Medical Practitioners Act, 1898.
 Medical Practitioners Amendment Act, 1900.
 Medical Practitioners Acts Further Amendment Act, 1900.
 Metropolitan Traffic Act, 1900.
 Motor Traffic Act, 1909.
 Native Animals Protection Act, 1903.
 Net-fishing (Port Hacking) Act, 1901.
 New South Wales Institution for the Deaf and Dumb and the
 Blind Incorporation Act of 1905.
 Noxious Trades Act, 1902.
 Obscene and Indecent Publications Act, 1901.
 Parliamentary Electorates and Elections Act, 1902.
 Parliamentary Elections (Amendment) Act, 1903.
 Parliamentary Elections Act, 1906.
 Parliamentary Elections (Second Ballot) Act, 1910.
 Party Processions Prevention Act, 1901.
 Police Offences Act, 1901.
 Police Offences (Amendment) Act, 1908.
 Police Regulation Act, 1899.
 Police Regulation (Superannuation) Act, 1906.
 Prevention of Cruelty to Animals Act, 1901.
 Prince Alfred Hospital Act, 1902.
 Printing Act, 1899.
 Private Hospitals Act, 1908.
 Public Health Act, 1902.
 Public Health (Night-soil Removal) Act, 1902.
 Public Hospitals Act, 1898.
 Public Hospitals (Voting) Act, 1900.

The Chief Secretary—continued.

Public Institutions Inspection Act, 1901.
 Pure Food Act, 1908.
 Quarantine Act, 1897.
 Royal Alexandra Hospital for Children Incorporation Act of 1906.
 Royal North Shore Hospital of Sydney Act, 1910.
 Second-hand Dealers and Collectors Act, 1906.
 Senators Elections Act, 1903.
 Smoke Nuisance Abatement Act, 1902.
 Subventions to Friendly Societies Act, 1908.
 Sydney Abattoir and Nuisances Prevention Act, 1902.
 Sydney Coal Delivery Act, 1901.
 Sydney Corporation Act, 1902.
 Sydney Corporation Amendment Act, 1902.
 Sydney Corporation Amendment Act, 1905.
 Sydney Corporation Amendment Act, 1906.
 Sydney Corporation Amendment Act, 1908.
 Sydney Hospital Act of 1881.
 Sydney Industrial Blind Institution Incorporation Act, 1901.
 Sydney Stock-driving Act, 1906.
 Theatres and Public Halls Act, 1908.
 Vagrancy Act, 1902.
 Vagrancy (Amendment) Act, 1905.
 Weights and Measures Act, 1898.
 Women's Franchise Act, 1902.

The Chief Secretary will correspond with—

The Heads of the several Churches ;
 The Returning Officers of Electoral Districts ;
 And also, as occasion may arise, with other public officers and public bodies.

*The Colonial Treasurer.**Is charged with—*

The management of the Consolidated Revenue, Public Works, Closer Settlement, Treasury Guarantee, and General Loan Funds, and Special Deposits Accounts.
 The receipt of collections by Accounting Officers and of Taxes, Imposts, Rates, and other revenues of the Crown payable to the Consolidated Revenue Fund.
 The payment of claims against the Crown.
 The Public Banking Arrangements.
 The Management and Regulation of the Public Debt.
 The Floating of Loans.
 The sale, inscription, and management of Stocks on the Sydney Register.
 The periodical inspection of the accounts of Official Assignees and the Registrar in Bankruptcy, under the provisions of the Bankruptcy Act ; of the Curator of Intestate Estate, under the Wills, Probate, and Administration Act.
 The exercise, in regard to the State Railways and Tramways, of the powers conferred upon him by the "Government Railways Act, 1901," as amended by the "Railway Commissioners Appointment Act of 1906."
 The exercise, in regard to the Sydney Harbour Trust, of the powers conferred upon the Minister by the "Sydney Harbour Trust Act, 1900."
 The business of public Printing, including the printing of Duty Stamps, and of Railway and Tramway Tickets.

The Colonial Treasurer—*continued.*

The publication of the *Government Gazette*.

The supervision of the engagement and discharge of Seamen, and all matters relating thereto.

The storage and safe custody of, and issue of permits for, gunpowder and explosive substances required for mercantile purposes.

The payment of Imperial Pensions and Allowances.

The payment of Pensions and Allowances for and on account of Crown and other Colonies.

The control of the Stores Department, which deals with the purchase and distribution of Stores, Stationery, and Furniture for the Public Service.

The issue, under various Acts of Parliament, of the following Licenses, viz. :—

Auctioneers', Publicans', Booth, Billiard, Bagatelle, Brewers', Spirit Merchants', Packet, Tobacco, Cigars and Cigarettes, Colonial Wine, Railway Refreshment Room, Oyster Vendors', Fishermen's, and Fishing Boat.

The administration of the following Acts :—

Banks Half-holiday Acts, 1900.

Poisons Act, 1902.

Stamp Duties Act, 1898.

Land and Income Tax Acts.

Explosives Act, 1905.

Pharmacy Act, 1897.

Navigation Act, 1901.

Wharfage and Tonnage Rates Act, 1901.

Invalidity and Accident Pensions Act, 1907.

Savings Bank of New South Wales Acts, 1902.

Government Savings Bank Act, 1906.

Seamen's Act, 1898.

The Treasurer corresponds with the Banking Institutions transacting business on behalf of the Government, in the State and elsewhere, and with all Government Departments and Officers, on the subject of collecting, expending, and accounting for the Public Revenues.

The Attorney-General

Is charged with—

The business relating to—

The Office of Chief Justice and to the Puisne Judges, the Industrial Court and District Courts, to the Office of Chairman of Quarter Sessions, and the appointment of Circuit and District Courts and Courts of Quarter Sessions.

Advising the Government on all legal questions.

The Office of the Crown Solicitor.

The Parliamentary Draftsman.

The Crown Prosecutors.

The Clerk of the Peace.

The Industrial Registrar.

Statute Law Consolidation.

Clerical Workers Act, 1910.

Crimes Act, 1900, and Crimes (Amendment) Act, 1905.

Crimes (Girls' Protection) Act, 1910.

Common Law Procedure Act, 1899.

District Courts Act, 1901, and District Courts (Amendment) Act, 1905.

The Attorney-General—*continued.*

Industrial Disputes Act, 1908, and amending Acts of 1908, 1909, and 1910.

Lotteries and Art Unions Act, 1901.

Poor Prisoners Defence Act, 1907.

Public Service Act, 1902, and Acts amending same.

Supreme Court and Circuit Court Act, 1900.

The Attorney-General will correspond with the other Ministers on questions on which his legal opinion may be required, and with the Judges, with regard to different matters coming under his Ministerial control.

The Minister of Justice.

Is charged with—

The business relating to—

The Equity Office.

The Bankruptcy Office.

The Sheriff's Office.

The Probate and Intestate Estates Office.

The Registrar-General's Office.

The Courts of Petty Sessions.

The Police Magistrates, Clerks of Petty Sessions, and Registrars of District Courts.

The Coroners,

Gaol and Penal Establishments (exclusive of Industrial or Reformatory Schools).

All matters relating to the commutation or remission of sentences or of fines, forfeitures, and estreats.

Control of Court-houses.

The administration of the following Acts :—

Auctioneers' Licensing Act, 1898.

Bankruptcy Act, 1898.

Billiards and Bagatelle Act, 1902.

Claims against the Government and Crown Suits Act, 1887, and Amendment Act, 1904.

Companies Act, 1899, and Acts amending the same.

Contractors Debts Acts, 1897.

Coroners Act, 1898 and 1901.

Coroner's Court Act, 1904.

District Courts Act, 1901, and District Courts (Amendment) Act, 1905, in so far as they relate to the Registrars and to officers acting under their control.

Fines and Forfeited Recognisances Recovery Act, 1902.

Fines and Penalties Act, 1901.

Habitual Criminals Act, 1905.

Hawkers and Pedlers Act, 1901.

Interstate Debts Recovery Act, 1901.

Justices Act, 1902, and Acts amending the same.

Jury Act, 1901, and Jury (Amendment) Acts, 1902 and 1905.

Legal Process Facilitation Act, 1904.

Liens on Crops and Wool and Stock Mortgages Act, 1898.

Liquor Act, 1898, and Liquor (Amendment) Acts, 1905 and 1907.

Marriage Act, 1899.

Money Lenders and Infants Loans Act, 1905.

Newspaper Act, 1898.

Pawnbrokers Act, 1902.

Prisons Act, 1899.

The Minister of Justice—*continued*.

Real Property Act, 1900.
 Registration of Births, Deaths, and Marriages Act, 1899.
 Registration of Deeds Act, 1897.
 Registration of Firms Act, 1902.
 Sheriff Act, 1900.
 Small Debts Recovery Act, 1899, and Small Debts Recovery
 (Amending) Act, 1905.
 State Carriages Act, 1899, and amending Act, 1903.
 Wills, Probate, and Administration Act, 1898, and Acts amending
 the same.

The Secretary for Mines

Is charged with—

All business relating to mining generally.
 Geological and Mining Surveys and Assays.
 The Examination of Coal-fields.
 The Inspection of Collieries and Mines.
 The Prospecting Vote.
 The administration of the following Acts :—
 Coal Mines Regulation Act, 1902, and Amending Acts.
 Miners' Accident Relief Act, 1900, and Amending Acts.
 Mines Inspection Act, 1901, and Amending Acts.
 Mining Act, 1906, and Amending Act.

The Secretary for Lands

Is charged with—

The administration of all Acts relating to the alienation, occupation
 (otherwise than for mining) and management of Crown Lands (other
 than lands within State Forests and Timber Reserves), and of lands
 held under the Church and School Lands Act, No. 20, 1897, also
 The Closer Settlement Acts, No. 37, 1904 ; No. 44, 1906 ; No. 12, 1907 ;
 No. 21, 1909.
 Closer Settlement Promotion Act, No. 7, 1910.
 Blockholders Act, No. 69, 1901.
 Labour Settlements Act, No. 44, 1902.
 Necropolis Act, No. 20, 1902.
 Newcastle Pasturage Reserve Act, No. 18, 1900.
 Pastures Protection Act, No. 111, 1902, and Pastures Protection
 (Amendment) Act, No. 20, 1906, those parts relating to the dis-
 tribution of rabbit-proof wire-netting and fencing.
 Prickly Pear Destruction Act, No. 32, 1901.
 Public Gates Act, No. 11, 1901.
 Public Parks Act, No. 40, 1902.
 Public Roads Act, No. 95, 1902.
 Public Trusts Act, No. 8, 1897.
 Western Lands Act, No. 70, 1901.
 Western Lands Act Amendment Act, No. 38, 1905 ; No. 32, 1908 ; and
 No. 18, 1909.
 Alignment of streets under the Public Roads Act, No. 95, 1902.
 Annual Leases.
 Auction Sales.
 Brickmaking permits.
 Business relating to the office of President and Commissioners of the
 Land Appeal Court.
 Closer Settlement Advisory Boards.
 Conditional Purchases.

The Secretary for Lands—*continued*.

Conditional Leases.
 Conditional Purchases Leases.
 Examination of Applicants for License to Survey Crown Lands.
 Exchange of Lands.
 Homestead Selections.
 Improvement Leases.
 Improvement Purchases on Gold-fields.
 Kuring-gai Chase Lands Leases.
 Land Appeal Court.
 Leases under Section 18, Act 1903.
 Local Land Boards.
 Maps, compilation, lithography and publication of State, county, parish, town and environs—and the sale of copies to the public.
 National Park.
 Occupation Licenses.
 Pastoral Leases.
 Preparation of Deeds of Grant.
 Proclamation of Towns and Villages.
 Recreation Reserves, and appointment of Trustees for same.
 Quarry Licenses.
 Reserves, Dedications, and Resumptions for Public Purposes.
 Residential Leases.
 Scrub Leases.
 Settlement Leases.
 Snow Leases.
 Special Leases.
 Special Sales, including the rescission of reservations of water frontage reclamations, unnecessary roads, &c.
 Survey of Public Lands for purposes of Alienation, Lease (other than Mineral Lease) or Dedication for Public Purposes, Topographical Surveys for purposes of Compilation of Maps.
 Subsidies for Parks and Recreation Grounds.
 Trespasses on Crown Lands.

The Secretary for Public Works

Is charged with—

The construction of Railways and Tramways, and works and buildings connected therewith.
 The construction and maintenance of Docks and Engineering Establishments.
 The construction and repair of Wharves, Basins, and Breakwaters, excepting such works as are vested in the Sydney Harbour Trust.
 The erection and repair of Lighthouses and Signal Stations.
 The Dredging and Improvement of Harbours and Rivers, excepting such works as are vested in the Sydney Harbour Trust.
 Works for Artesian Boring and the storage of Water on travelling stock routes, and for Town Supply in the Pastoral Districts.
 Public Watering Places, and Protection of certain reserves from trespass, other than those under the control of Municipal and Shire Councils.
 Works in connection with Water Rights, as defined by Act 51 of 1902.
 The construction and maintenance of Water Conservation Works.
 The construction of Water Supply Works in Sydney and Suburbs, and in Country Towns.
 The construction of Sewerage and Drainage Works, Sydney and Suburbs and Country Towns.

The Secretary for Public Works—*continued*.

The erection, repair, and maintenance of Public Buildings.

The erection and repair of buildings, &c., for the Commonwealth of Australia, in the State of New South Wales, when requested by the Commonwealth authorities.

The formation and maintenance of Roads not under Municipal or Shire control, and of Military Roads.

The construction and maintenance of National Bridges, and of bridges outside Municipalities in the Western Division.

The management of Public National Ferries, and of ferries outside Municipalities in the Western Division.

The Resumption of Land for Public Purposes.

The Detail Survey of Sydney and Suburbs.

The Labour Commissioners' office.

The administration of all Acts dealing with Metropolitan and Country Towns Water Supply and Sewerage; also Hunter District Water Supply and Sewerage Acts; also certain Acts dealing with Main and Parish Roads, Bridges, Tolls, &c.; the Water Rights Act, 1902; the Water and Drainage Acts; the Local Government Act, 1906, and Amendment Act, 1908; the Local Government (Loans) Act, 1907; Scaffolding and Lifts Act, 1902, and Amending Act, 1908.

Public Works Act, 1900.

Public Watering Places Act, 1900 (part).

Artesian Wells Act, 1897.

Drainage Promotion Act, 1901.

All Acts authorising the carrying out of Public Works.

The Minister of Public Instruction

Is charged with—

The Administration of the Act 43 Vic. No. 23.

Technical Education.

State Scholarships and Bursaries.

All lands dedicated or acquired for the purpose of Public Instruction by Act of Parliament or otherwise.

State Children Relief Board.

The University and Affiliated Colleges.

Public Library of New South Wales.

Sydney Grammar School.

Scholastic Institutions aided from the Consolidated Revenue, including Schools of Arts and kindred Institutions.

Literary and Scientific Institutions aided from the Consolidated Revenue.

Sydney Observatory.

Australian Museum.

National Art Gallery of New South Wales.

Royal Art Society.

Shelters, Industrial Schools, and Reformatory Schools for children.

Charitable Schools aided from Consolidated Revenue.

The administration of the following Acts :—

Public Instruction Act of 1880, 43 Vic. No. 23.

Free Education Act, 1906.

State Children Relief Act, 1901.

Children's Protection Act, 1902.

Infant Protection Act, 1904.

Neglected Children and Juvenile Offenders Act, 1905.

Trades Hall and Literary Institute Act of 1893.

The Minister of Public Instruction—*continued*.

Anatomy Act, 1901.

University and University Colleges Act, 1900; and University and University Colleges (Amendment) Act, 1902.

Library and Art Gallery Act, 1899.

Australian Museum Act, 1902.

Sydney Grammar School Act, 1854.

Trustees of Schools of Arts Enabling Act, 1902.

The Minister for Labour and Industry

Is charged with—

The administration of the following Acts :—

Factories and Shops Act of 1896, as amended by Act, No. 29, 1908, and Act No. 28, 1909.

The Early Closing Acts (Principal and Amending), Nos. 38, 1899; 81, 1900; 29, 1906.

Shearers' Accommodation Act, 1901.

Truck Act of 1900, and Truck Act Amendment Act of 1901.

Agreements Validating Act, 1902.

Apprentices Act, 1901.

Minimum Wage Act, 1908.

Saturday Half Holiday Act, 1910.

The Minister for Agriculture

Is charged with—

The administration of all matters relating to Agriculture, including the Agricultural College and Experimental and Demonstration Farms and Stations.

Forestry.

Commons.

Botanic Gardens, Sydney, and Centennial Park, and Domain.

Nursery Gardens, Campbelltown.

Irrigation Farms.

Irrigation at Artesian Bores.

Supervision of Dairies for Instructional purposes.

The administration of the following Acts :—

Agricultural Society Act, 1902.

Fertilisers Act, 1904.

Forestry Act, 1909.

Hay Irrigation Act, 1902.

Pastures Protection Acts, except matters relating to wire-netting and fencing.

Stock Act, 1901.

Stock Diseases (Tick) Act, 1901.

Trustees of Show-grounds Enabling Act, 1909.

Vine and Vegetation Diseases Act, 1901.

Vine and Vegetation Diseases (Fruit Pests) Act, 1906.

Water and Drainage Acts for purposes of Irrigation.

Wentworth Irrigation Act, 1890, and

Wine Adulteration Act, 1902.

DEFENCE.

The defence of Australia has been administered by the Federal Government since the foundation of the Commonwealth in 1901. The Defence Act was passed in 1903, and amended in 1909 and 1910. At the end of the year 1909 Viscount Kitchener visited Australia to inspect the military forces and to give the Government the benefit of his experience and advice in the

development of a defence scheme. His recommendations were embodied in a report in which he estimated that a force of 80,000 men would be required for land defence, and an annual expenditure of £1,884,000.

The Defence Act provides that all male inhabitants,—except those specially exempted by the Act—who have resided in Australia for six months, and who are British subjects between the ages 18 and 60 years, may be called upon to serve in the Citizen forces in time of war. The order in which they may be called upon is as follows:—

1. From 18 to 35 years of age—All unmarried men or widowers without children.
2. From 35 to 45 years of age—All unmarried men or widowers without children.
3. From 18 to 35 years of age—All married men or widowers with children.
4. From 35 to 45 years of age—All married men or widowers with children.
5. All men aged 45 years to 60 years.

The following shall be exempt from service in time of war:—(a) Persons reported unfit by medical authorities; (b) Members and officers of Parliament; (c) Judges and magistrates; (d) Ministers of religion; (e) Police or prison employees; (f) Persons employed in lighthouses; (g) Medical practitioners or nurses in public hospitals; (h) Persons not substantially of European origin or descent; (i) Persons whose conscientious beliefs do not allow them to bear arms. As regards persons described in paragraphs g, h, i, the exemption does not extend to duties of a non-combatant nature.

The Act also prescribes compulsory training, as shown hereunder, for all male inhabitants of Australia who are British subjects between 12 and 26 years:—

- | | | |
|-----|--|-----------------|
| (a) | From 12 to 14 years of age in the Junior Cadets. | |
| (b) | „ 14 „ 18 „ | Senior Cadets. |
| (c) | „ 18 „ 26 „ | Citizen Forces. |

This part of the Act does not apply to any person who has reached the age of 18 years before the commencement of the Act. Persons who are medically unfit or not substantially of European descent are exempt from training, and the Governor-General may grant temporary exemption to persons residing outside training areas or at a great distance from places appointed for training.

The Defence Forces are both military and naval, and are divided into permanent and citizen classes. The Permanent are those bound for a term of continuous service, and the Citizen forces are not so bound.

A Training College, known as the Royal Military College, was opened at Duntroon, near Queanbeyan, N.S.W., on the 27th June, 1911. At present there are 41 boys from 16 to 19 years of age in residence. The College course extends over four years, after which the young officers will serve in England or India for one year, when they will return to Australia. At the expiration of five years from the establishment of the Military College, only persons who are graduates of the College will be appointed as officers of the permanent forces. Promotion to the rank of officer in the citizen forces will be from the ranks. A site for the Naval College has not yet been chosen, but it is expected that an early selection will be made by the naval authorities.

Compulsory military training came into operation on 1st January, 1911. The State has been divided into training areas; boys whose 14th, 15th, 16th, and 17th birthdays occur in the year 1911 were required to register in their respective districts. Six months were allowed for medical inspection and organisation, and the actual training commenced in the latter half of the year.

As a comparison of the number of boys of this State with the other States of the Commonwealth will be of interest, the following return is presented. It will be seen that of the total 153,637 registrations of Senior Cadets from 1st January to 31st July, 1911, there were 87,369 boys in training, of whom 33,404 resided in New South Wales :—

Military District (State).	Total Registrations.	Exemptions granted.*	Total Medically examined.	Number Medically fit.	Percentage declared fit of those Medically examined.	Number in training.
New South Wales	54,053	19,074	37,075	34,832	94.0	33,404
Victoria	47,858	15,677	32,077	30,206	94.2	28,109
Queensland	24,168	10,993	13,587	12,631	93.0	10,902
South Australia ...	14,676	5,086	11,076	10,395	93.9	8,712
Western Australia	6,815	2,393	4,991	4,474	89.6	3,640
Tasmania	6,067	2,687	3,388	3,234	95.5	2,602
Commonwealth ...	153,637	55,910	102,194	95,772	93.7	87,369

* Chiefly on account of great distances from centres of population.

It will be seen that only a very small percentage failed to pass the medical examination, and the percentage would be further reduced by the exclusion of lads deemed only temporarily unfit.

The senior and junior cadets of New South Wales previous to the universal training system coming into force were disbanded, and those of service age absorbed in the new organisation irrespective of their enrolment in a cadet regiment or otherwise. Boys receive physical drill in the schools until the age of 14 years, after which they must enrol as senior cadets.

In addition to the Senior Cadets shown above, medical examinations in the month of July, 1911, of Junior Cadets gave a total for the Commonwealth of 9,044 boys. Of these, 8,842 were pronounced fit, 135 unfit, and 67 as temporarily unfit. The numbers for New South Wales were 2,398 fit, 71 unfit, and 15 temporarily unfit.

MILITARY FORCE IN NEW SOUTH WALES.

Although compulsory military training came into operation so recently as on 1st January, 1911, the defence forces of this State had already attained a high standard of efficiency, and the subjoined table contains information regarding the military force in New South Wales on 31st December, 1910 :—

Permanent—				Militia (continued)—			
Headquarters Staff ... ..	...	...	15	Army Medical Corps ... ..	...	...	257
Artillery ... ..	...	...	345	Army Veterinary Corps ... ..	...	...	5
Engineers ... ..	...	...	52				
Army Service Corps ... ..	...	...	14	Total Militia ... ..	...	...	7,667
Army Medical Corps ... ..	...	...	11				
Ordnance Department ... ..	...	...	43	Volunteers—			
Instructional Staff ... ..	...	...	232	Automobile Corps ... ..	...	...	14
Other ... ..	...	...	28	Army Nursing Service ... ..	...	...	26
Total Permanent... ..	...	...	740	Total Volunteer ... ..	...	...	40
				Total Permanent, Militia, and Volunteer ... ..	...	...	8,447
Militia—				Unattached List of Officers			
Light Horse ... ..	...	...	2,000	Reserve of Officers ... ..	...	...	156
Artillery ... ..	...	...	800	Medical Corps Reserve ... ..	...	...	46
Engineers... ..	...	...	400	Chaplains ... ..	...	...	35
Infantry—1st Battalion... ..	...	...	3,888	Cadets ... ..	...	...	11,061
University Scouts ... ..	...	...	83	Rifle Clubs ... ..	...	...	14,900
Intelligence Corps ... ..	...	...	12				
Signallers ... ..	...	...	74	Grand Total ... ..	...	...	34,709
Army Service Corps ... ..	...	...	148				

NAVAL FORCES.

Under an agreement made by the Imperial Government with Australia and New Zealand, the Naval Force on the Australian station consists of a minimum strength of one first-class armoured cruiser, three second-class cruisers, and five third-class cruisers, and a Royal Naval Reserve of 25 officers and 700 seamen and stokers. This force is connected immediately with the ports of Australia and New Zealand, but the sphere of operations extends to the Australian, China, and East Indies stations. One ship is kept in reserve, and three others, partly manned, are used as drill ships for training the Royal Naval Reserve, the remainder being kept in commission fully manned. The drill ships and one other vessel are manned by Australians and New Zealanders, paid at special rates, and are controlled by officers of the Royal Navy and Royal Naval Reserve. Eight nominations for naval cadetships are available annually to the Commonwealth of Australia, and two to the Dominion of New Zealand.

The Imperial war vessels on the Australian station are as follows:—

Names.	Date of Launch.	Load displacement.	Draught.	Length.	Beam.	Indicated horse-power.	Measured mile speed.	Armament.	Sailing Complement.
Protected Cruiser, 1 Cl.—		tons.	ft. in.	ft. in.	ft. in.		knots		
Powerful ..	1895	14,200	27 9	538 3	71 0	25,000	22·1	2 9·2 B.L., 16 6-in. Q.F., 14 12-pr., 12 3-pr., 2 Max., 4 S.T., 1 12-pr. (8 cwt.) Field Gun.	843
Unarmoured— Cruisers, 2 Cl.—									
Cambrian ..	1893	4,360	21 1	336 0	49 6	7,000	19·5	2 6-in., 8 4·7 Q.F., 8 6-pr., 1 3-pr., 4 M., 3 T., 1 12-pr. (8 cwt.) Field Gun.	319
Challenger ..	1902	5,880	19 11	376 0	16 0	12,500	21·3	11 6-in., 8 12-pr., 1 3-pr., 2 M., 2 S.T., 1 12-pr. (8 cwt.) Field Gun.	444
Encounter ..	1902	5,880	19 8	326 0	56 0	12,500	20·75	11 6-in., 8 12-pr., 1 3-pr., 2 M., 2 S.T., 1 12-pr. (8 cwt.) Field Gun.	455
Cruisers, 3 Cl.—									
Payche ..	1898	2,135	15 10	313 0	36 6	5,000	20·2	8 4-in., 8 3-pr., Q., 3 M., 2 T.	231
Pegasus ..	1897	2,135	15 7	313 0	36 6	5,000	20·2	8 4-in., 8 3-pr., Q., 3 M., 2 T.	231
Prometheus ..	1898	2,135	15 9	313 0	36 6	5,000	20·2	8 4-in., 8 3-pr., Q., 3 M., 2 T.	231
Pioneer ..	1899	2,200	15 10	318 10	36 9	5,000	20·0	8 4-in., 8 3-pr., Q., 3 M., 2 T.	231
Pyramus ..	1897	2,135	15 8	313 0	36 6	5,000	20·2	8 4-in., 8 3-pr., Q., 3 M., 2 T.	231
Screw Sloop—									
Torch ..	1894	960	11 6	180 0	32 6	1,100	13·0	4 4-in., 4 3-pr., 2 M.	105
Surveying Vessels—									
Pantome ..	1901	1,070	10 11	210 0	33 0	1,400	13·3	2 3-pr., Q., 2 M.	135
Sealark ..	..	900	10 0	179 10	29 0	500	11·0	1 3-pr., 2·45 Nordenföldt	95

The Psyche, Pioneer, and Pyramus are drill ships, and the Pegasus is in reserve at Sydney, which is the headquarters of the fleet and ranks as a first-class naval station. The following statement shows the war vessels, other than those on the Australian station, which visited the port of Sydney during the year 1910 :—

Nationality.	Name.	Type.	From.	To.
British	Gibraltar	First-class cruiser ...	3 Dec. ...	24 Dec.
Foreign—				
German	Condor	Protected cruiser ...	10 March ...	10 May.
"	Planet	Surveying vessel ...	12 April ...	10 June.
French	Zelée	Gunboat	25 March ...	25 March.
"	Kersaint	Third-class cruiser ...	12 July ...	12 Oct.
Dutch	De Ruyter	Battleship	16 Sept. ...	27 Sept.
"	Hertog Hendrik ...	"	"	"
"	Koningin Regentes	"	"	"
Japanese	Aso	Armoured cruiser ...	21 March ...	27 March.
"	Sayo	Protected cruiser ...	"	"

In 1908 it was decided that the Commonwealth should undertake the responsibility of local naval defence, the existing agreement being replaced with a scheme whereby Australia will provide destroyers, submarines, and depôt-ships, and maintain them fully equipped and efficient.

The beginning of the Australian Navy was made by the construction of three torpedo-boat destroyers. Of these, the "Parramatta" and "Yarra" were built in Great Britain, and arrived in Australian waters in November, 1910. The parts of the third ship were imported and put together in Fitzroy Dock, Sydney. The work was performed rapidly at the Government Dockyard, and a successful launching took place on the 4th April, 1911, the historic event being witnessed by thousands of people. The ship was named "Warrego."

As a result of the Imperial Defence Conference in 1909, it was decided to establish a Pacific unit of the British navy, of which Canada and Australia will provide separate parts. Arrangements have been made by the Commonwealth Government for the construction of an armoured cruiser, three second-class cruisers, three destroyers, and two submarines. The armoured cruiser "Australia," and two of the second-class cruisers are being built, and it is expected that they will be completed in 1912. Orders for one cruiser and three destroyers have been placed with the Fitzroy Dock, Sydney.

In 1911, Sir Reginald Henderson visited Australia to advise the Government on the subject of Naval Defence. His recommendations embrace the gradual construction of a fleet of fifty-two vessels, requiring about 15,000 men, and the construction of docks, and the establishment of six naval bases and eleven sub-bases. A Naval Board of five members has been appointed, which, subject to the control of the Minister for Defence, is charged with the administration of all matters relating to the Naval Forces of the Commonwealth.

There is a District Naval Officer for New South Wales who is responsible for the organisation and training of naval cadets, and has control of the naval services in the State.

It has been decided to enrol 1,000 boys as naval cadets, and these lads are to be trained for active service on the warships of the Commonwealth.

The manning of the warships lately placed in commission by the Government of the Commonwealth, and the compulsory training of cadets for naval service will cause large future increases in the naval force.

At the 31st December, 1910, the Naval Force in New South Wales was classified as under :—

Naval Militia—partially-paid	...	...	...	...	...	311
Permanent Force	...	...	...	...	...	5
Naval Cadets	...	...	...	...	...	200
Total number	...	...	...	...	...	516

ROYAL NAVAL HOUSE.

The Royal Naval House was erected in Sydney exclusively for the accommodation of the men of the British Navy. It was built in 1889, at a total cost, inclusive of land, of £25,000, contributed by citizens and by the Government of New South Wales. A new wing was added in 1908 at a cost of £8,600. The House contains large reading, smoking, dining, and billiard rooms, besides a gymnasium, and other accessories. Sleeping accommodation is available for 400 men. The institution is self-supporting, but annual grants from the Lords Commissioners of the Admiralty and from the Government of New South Wales are devoted to maintaining the House during the absence of the Squadron from Sydney. About 50,000 men are lodged annually, and the House is used by the men of the fleet very freely.

It is the only establishment of its kind in Australasia, and is controlled by a Superintendent, a Committee elected by the Trustees from among their number, and a few Naval Officers ; also an Honorary Secretary and Treasurer.

SMALL-ARMS FACTORY AT LITHGOW.

A small-arms factory has been erected at Lithgow in this State for the manufacture of the outfit of all rifles and bayonets required for the defence purposes of the Commonwealth.

EDUCATION

THE STATE SYSTEM OF EDUCATION.

THE development of the educational system of this State has been a gradual progression from desultory and unorganised methods of instruction, to the sustained and systematic plan of the present day.

Until the year 1848 the schools were conducted for the most part under the auspices of the various denominations, the cost being provided by means of voluntary contributions, aided by State subventions, the degree of education achieved depending on the relative zeal and conscientiousness of the teachers in charge. There was no inspection of the schools, in the modern sense of the term, and no co-ordination in the work of the several denominations.

The Board of National Education was incorporated in 1848, and was entrusted with a modified control of the "National" and Denominational Schools, each of which was subsidised by the State, although working in many country towns on most injurious terms of rivalry.

The Council of Education came into existence under the provisions of the Act of 1866, and was entrusted with the disbursement of the funds provided by the State for primary education. Under this arrangement, the money subsidy to Denominational Schools was conditioned on the course of instruction reaching a prescribed standard, and the schools were subject to inspection by the Council's officers.

The continuance of two types of schools, each receiving aid from the State, proved most unsatisfactory, and a public agitation, extending over several years, culminated, in the year 1880, with the enactment of the present law, under which the administration of the system of public education is vested directly in a responsible Minister of State.

The Act requires that every child of the ages between six and fourteen years shall attend school for a minimum period of seventy days in each half-year, unless just cause for exemption can be shown; and to secure ready compliance with this requirement the State provides schools and free tuition wherever the needs of any locality are demonstrated.

The causes of exemption defined by the Act are:—That the child is being regularly and efficiently instructed in some other manner; that from sickness or infirmity or from fear of infection or other unavoidable cause there is inability to attend; that there is no State School within 2 miles by the nearest road, or that the child has already been educated up to the standard of education required. Under the last clause, examinations for exemption certificates are held at the annual inspection of the schools.

The teaching in State schools is absolutely free of cost to the parents of the children, and, although it is permissible to send children to schools conducted by religious denominations, and by private persons, the subsidies formerly given to Denominational Schools have been abolished.

Provision is made for public schools, to afford primary instruction to all children without sectarian or class distinction; for superior public schools, in which additional lessons in the higher branches may be given; for evening public schools, with the object of instructing persons who have not received the advantages of primary education while of school age; and for high

schools for boys and girls, in which the course of instruction will complete the public school curriculum, and prepare students for the University. In all schools administered under the Act the teaching is strictly non-sectarian; but the words "secular instruction" are held to include general religious teaching, as distinguished from dogmatic or polemic theology. The history of England and of Australia also forms part of the course of secular instruction.

Four hours during each school day must be devoted to secular instruction, exclusively; and one hour each day may be set apart for religious instruction, to be given in a separate class-room by a clergyman or religious teacher of any persuasion to children of the same sect whose parents have no objection to such instruction. As a general rule children of different persuasions are instructed on different days, and in the case of non-attendance of the clergyman at the time set apart, ordinary secular instruction must be given.

Special arrangements are made for the conveyance of children to school. They are allowed to travel free by rail to the nearest public or private primary school, to the nearest superior public school, provided they are sufficiently advanced to be enrolled in the fifth class, and to the High Schools. In districts remote from the railway, coaches are subsidised by the Government to convey children to and from the nearest school, and in some localities children are conveyed by water.

Other sections of the Act provide for the establishment of provisional schools, and the appointment of itinerant teachers in remote and thinly-populated districts. The multiplication of small schools in the various districts has, however, recently fallen into disfavour, as it is recognised that one central school would offer the dual advantages of greater economy and increased efficiency. Where possible, it is intended to abolish clusters of small schools, and replace them with well-equipped central institutions, to which the children will be conveyed free of charge.

In thinly-populated districts so remote from a State School that attendance is impracticable, the State grants subsidies to small private schools.

Although the whole internal administration of schools is reserved to the Minister, Public School Boards are appointed to visit schools, to induce parents to send their children regularly, and to carry out other duties either in support of the teachers or to check or report misconduct. These Boards are restricted in supervision to the schools in their respective districts, which are defined by the proclamation of the Governor. The total number of Boards in operation at the close of 1910 was 325, but owing to their limited responsibilities, many of the Boards are inactive.

During recent years, a number of Parents' and Citizens' Associations have been formed in connection with schools. Their growth testifies to a widespread desire to do something independently of State aid to make the schools better fitted in the matter of equipment for educational work. These associations have no authority in respect of the internal management of the schools, nor in the expenditure of public moneys.

MODERN DEVELOPMENT.

Valuable as the system adopted and adjusted from time to time had proved in the educational development of the State, the necessity existed for devising plans and methods more in consonance with modern ideals as to the training of the young. In 1902 a conference was held of representatives of differing ideals and various interests, and in the same year two Educational Commissioners were despatched to Europe and America to investigate the systems in vogue. Much discussion by experts, and close investigation of the developments emerging in other countries, led to the assembly of a large representative Conference, convened by the Government

early in the year 1904, wherein resolutions were adopted in favour of the following course of action :—

- (1.) The gradual termination of the Pupil-teacher system, and the introduction of the system of "previous training."
- (2.) The establishment of a Chair of Pedagogy in connection with the Sydney University.
- (3.) The provision and equipment of a Normal School, with practising school attached.
- (4.) The organisation of local training schools in country districts to provide suitable teachers for small country schools.
- (5.) The establishment of a Kindergarten College for the training of teachers.
- (6.) The sending of students to Europe—
 - (a) To study and report on the best methods of training teachers as adopted in the most renowned normal colleges.
 - (b) To study the theory and practice of Sloyd.
- (7.) The extension of Science teaching, Nature-study, and in girls' departments, domestic economy.
- (8.) The establishment of truant schools, and of schools for the feeble-minded.
- (9.) Improvements, as recommended by the Commissioners, in respect of school hygiene.
- (10.) The introduction of a monthly school paper.

To effect practical results considerable modifications were essential as to the mode of teaching, and consequently as to the methods of inspection of schools, and steps were at once taken to secure the thorough training of teachers prior to their entry upon duty in the schools instead of the old plan under which their training as teachers was concurrent with their own duties of teachers of the school children, the term "pupil-teacher" having been used in earlier years to designate teachers in the first stage of their work.

THE SYLLABUS.

In the year 1905 a Syllabus of Instruction for primary school work, drawn up to accord with the new plans and ideals, was issued to the teachers for their guidance. It was designed with the intention of giving full scope to the aim of combining and presenting the subjects of study so as to render the mental powers of the pupil a forceful aid to the efforts of the teacher, to make the school life an inherent and pleasant portion of the child's life environment, and to lay worthy foundations of his future citizenship.

The syllabus consists of six distinct groups of subjects, the treatment of which, by a gradual progression, covers the seven periods of school life—from the simple to the more advanced stage when pupils enter upon their secondary education.

The groups are as follow :—

English.—Correct speech, reading, writing, spelling, composition, recitation, grammar.

Mathematics.—Arithmetic, mensuration, algebra, geometry.

Nature Knowledge.—Geography, object-lessons, elementary science.

Civics and Morals.—History, scripture, moral duties, citizenship.

Art Manual Work.—Drawing, brushwork, kindergarten exercises, modelling, woodwork, needlework.

Musical and Physical Education.

The course outlined for the guidance of the First Class Infants' Department will be completed, under ordinary conditions, at the age of eight years. Thence in point of time the work of the second, third, and fourth classes will proceed in gradations of one year each; the pupil will enter the Fifth Class on attaining his eleventh birthday, and will not be promoted to the Sixth Class until he has shown that the fifth course has been fully surmounted.

As to his further training, in the language of the syllabus :—

A large majority of the pupils will not reach a standard beyond that of the Fifth Class. The work of this class should therefore round-off a distinct stage in the primary course. Upon the completion of it the pupil should be able to read ordinary English intelligently, make use of his ability to read in furthering his knowledge, express himself in clear and correct language, carry out the most common calculations of trade and business, have a general knowledge of the surface of the earth, of some elementary natural phenomena, and of the main features of the history of England and Australia, have acquired a degree of skill of hand that will assist him in the use of tools, and a training in moral and civic duties that will form a basis for future citizenship. In girls' schools the course will have been modified to admit of the acquirement of knowledge and skill that will afterwards be of use in domestic and family pursuits.

Only a limited number of pupils are able to take up the work of the sixth and seventh classes, and, regarding fifth-class work as terminating the primary course, only those pupils who have satisfactorily completed it should be placed in higher classes. The head of a department in which six and seventh classes are in operation should, therefore, ascertain in the case of each individual pupil, by estimating the general character of his work in fifth class, and by individual examination tests in English and Mathematics, that the primary course has been satisfactorily completed before he is promoted to the higher classes. This condition will make it necessary for some pupils to remain longer than one year in the fifth class, while at the same time it will furnish a stimulus to industry and care on the part of the older pupils.

The procedure as to the sixth and seventh classes is seen in a further extract from the syllabus as follows :—

The Higher Primary Course of Instruction is designed for those pupils who remain at school for one or two years after completing the Primary Course. As a rule it will be taken by pupils of an age from 13 to 15 years.

This course aims at the continuance of a broad general education, with a special direction of the knowledge and training of the pupils towards the class of employment they are likely to enter after leaving school. For some, this entails a preparation for public examination, but in order to qualify them for such examination the course of instruction should not be unduly limited. It needs to be recognised in the work of these classes that both boys and girls should acquire at school a preliminary stock of readily available information, a mental grasp, and a general intelligence beyond what mere preparation for an examination will supply.

The boy or girl leaving these classes should have acquired to a reasonable extent the power of self direction in study so that the pupil of 13 may develop into the student of 15 or 16 years of age, carrying into his occupation, or into his further studies the power to direct his own efforts towards the successful accomplishment of the work which he finds he has to do. With this object in view it is necessary that self-reliant efforts on the part of the pupil should accompany the work of the teacher.

As has been shown in the preceding notes, only those pupils should be admitted to Sixth and Seventh Classes who are qualified for taking up the work of these classes by having satisfactorily completed the Primary Course.

The subjects of study in the Higher Primary Course are the following :—

English, Mathematics, Geography, History, Science, Physical Training, Music, Scripture, Drawing, (and other manual work when practicable), Latin (optional), and French (optional).

The inclusion of Hand Work other than Drawing is contingent upon the necessary provision for it being made. Latin and French should be taken up only by pupils who are likely to remain at school long enough to reach a really useful stage in the study of these languages. The wishes of parents in this matter, and the nature of the future career of the pupils should be considered in this connection, but no pupil who is likely to spend only a few months upon these studies should waste time by entering upon them. None of the remaining subjects should be omitted at any time from the course of instruction, though the treatment of them may be modified to suit the examination or other special purpose for which preparation is being made. When a general course is followed without reference to any examination, the syllabus indicates the line of study.

METHODS OF INSPECTION.

As previously remarked, the methods of inspection have been radically altered to accord with the spirit pervading the new syllabus. Detailed exhaustive examination of schools has been abandoned, a quarterly examination by the principal of the school in certain subjects having been substituted, which is tested at various points so as to bring the inspector and teacher into close and friendly contact in their co-ordinate duties.

This mode enables the inspector to devote his attention to general observation of the work of the school, inspecting minutely where signs of weakness may be apparent.

As the result of his examination, the Inspector will assess the value of the teaching, with special reference to various considerations as detailed in his official instructions.

During each year it is expected that the Inspector will meet the teachers of his district, the meetings being devoted to lectures, essays, and the discussion of educational topics.

The most anxious consideration in connection with the reformed scheme of education is the furtherance of an economical and effective plan of higher education to follow the initial training of the Primary Schools. The main object to be sought is the establishment of defined courses of study to meet the requirements of students to fit them for the avenues of life in which they will be placed, with the very desirable ultimate aim of regarding the University as the summit of the educational edifice.

The attention of the educational authorities is therefore occupied with the extension of facilities for higher education. The establishment of the District Schools, the Trade and Continuation Schools for the children of rural districts as well as for city children, and the reorganisation of the scholarship and bursary system by which pupils from the most remote schools may pass to the highest stages of scientific instruction, are steps towards this object which have met with general approval.

RELIGIOUS INSTRUCTION IN STATE SCHOOLS.

The advantage of the provision permitting religious instruction to be given to scholars in State schools has not been used to a very great extent by the various denominations.

The total number of visits paid by clergymen and religious teachers during the years 1908-10 was as follows:—

Denomination.	Number of Visits.		
	1908.	1909.	1910.
Church of England	24,701	24,977	25,209
Roman Catholic	1,032	936	840
Presbyterian	7,143	6,920	7,132
Methodist	7,604	8,301	8,430
Other Denominations	4,441	4,542	5,094
Total	44,921	45,676	46,705

More than 46,000 visits were paid to public schools by religious teachers during 1910, that is to say, 1,000 visits were paid each week that the schools were open. It would be a better test of the extent to which the opportunities for religious instruction have been used if the number of children taught could be quoted.

In connection with this matter it may be noted that, in all parts of the civilised world a considerable amount of attention is bestowed on the problem of moral education, and efforts are being made to devise the best means of teaching ethics in the public schools.

STATE SCHOOLS.

At the inception of the Public Instruction Act, in 1880, there were 1,220 schools maintained or subsidised by the State, viz. :—

Public schools	...	...	...	...	705
Provincial schools	...	...	...	...	313
Half-time schools	...	...	...	...	97
Denominational schools	...	...	...	...	105

The following table affords a comparison between the number of State schools in operation in 1881, the first full year in which the Department was under immediate ministerial control, and the numbers open during the years 1891, 1901, and 1910; the figures represent the gross number of schools in operation at any time during the year, and are not comparable with those shown later, referring to the number remaining open at the end of the year :—

Type of School.	Schools in operation.			
	1881.	1891.	1901.	1910.
High	...	5	4	5
Public	1,100	1,697	2,049	1,959
Provisional	246	349	428	485
Half-time	93	300	276	306
House-to-house	...	92	20	9
Evening	57	14	41	42
Subsidised	...	...	...	448
Reformatory and Industrial	2	3	4	3
Total	1,498	2,460	2,822	3,257

It is evident that, even with the loss of the denominational schools, the number of schools had largely increased (from 1,220 to 1,498) during the first year the new Act was in force, and the number has since that time more than doubled.

CLASSIFICATION OF SCHOOLS.

At the latest classification of schools made in January, 1911, the schools open were graded as follows :—

Class.	Average Attendance.	No. of Schools.
I	600 (+)	65
II	400-600	42
III	200-400	85
IV	50-200	370
V	30-50	600
VI	20-30	455
VII	20 (—)	1,077
Evening	...	36
Infants and Unclassified	...	8
Subsidised (Primary)	...	362
Total	...	3,100

High Schools and Industrial Schools, &c., are excluded from these figures.

SCHOOL SITES.

During 1910, 80 new sites, aggregating 144 acres, 21 $\frac{1}{4}$ perches, were vested in the Department of Public Instruction. Of these, one site of 2 acres was conveyed as a gift, and 6 others, aggregating 9 acres, 29 perches, being resumed, were given over free of claims for resumption moneys. The remaining 73 sites were acquired by grant, resumption, or purchase. The total school sites vested in the Department are valued at £600,000 approximately.

For the establishment of new schools, 144 applications were received during the year. Of these, 94 were granted, the majority, viz., 59, being for provisional schools. By the end of the year, 30 of the schools agreed upon were in active operation.

SCHOOL ACCOMMODATION.

There was accommodation in the schools in 1881 for 98,721 children, and at the end of 1910 for 228,253; and comparison of the latter number with the average attendance at the present time shows that there is, on the whole, ample space in the school buildings to meet requirements. On the basis adopted in 1908 in regard to school buildings, 150 cubic feet of air space are required per child.

SUBSIDIES TO SCHOOLS.

The system of granting subsidies for the education of children resident in places remote from any State schools has been instituted during recent years, with good effect. The conditions upon which aid is granted are that two or more families must combine to engage a private teacher, who, after approval of the Minister as to his qualifications, will receive, if in the Eastern portion of the State, a subsidy at the rate of £5 per pupil per annum, the maximum amount being £50 per school; and if in the Western portion, a subsidy of £6 per pupil per annum—the maximum per school being £60. The number of such schools at the end of 1910 was 362, as compared with 160 six years ago, and the public appreciation of their usefulness, apparently, is increasing. The enrolment at these schools in the December quarter of 1910 was 3,471, and the average attendance 2,831. The provisions of the Regulation have recently been extended in the direction of granting a subsidy to any large family living in complete isolation. The estimated amount required for salaries of teachers of subsidised schools for the year 1911-12 is £15,225.

CENTRALISATION.

In 1904 the consolidation of small schools was initiated, the Department of Public Instruction granting a subsidy for the conveyance, to central schools, of children attending various small schools. The advantages of this system are that better buildings and equipment, as well as a larger teaching staff, can be provided, and a higher range of instruction imparted. During 1910, subsidies were paid towards conveyance of children to 63 central schools.

In 1908, to supply means of education for families so isolated that even two could not readily combine to form a subsidised school, a travelling school was established in the Narrabri district; the teacher was provided with a vehicle to carry school requisites, and a tent for use as a schoolroom, and was to teach for a week at a time at each centre in his circuit. In connection with extensive railway construction works, Railway Camp Schools have been instituted to render educational facilities available to the children of the men engaged on the works. During 1910, 3 of these schools were in operation, and of these, 2 were in existence at the end of the year.

AGRICULTURE.

Special attention has been given to the teaching of elementary principles of agriculture, and gardens and experimental plots have been established in connection with a large number of schools. In 1905 an Instructor of School Agriculture was appointed to direct the work of the teachers; his duties are to visit schools in the interests of school agriculture, and to supply the teachers with information required to direct the work of the pupils. Rural camp schools are also held from time to time, where metropolitan school-boys are accommodated for a short period, while they visit dairies, farms, &c., under suitable guidance, and are instructed by direct illustration. The object of these camps is to familiarise city lads with the important rural industries of the State.

At the Rural Camp School held in the spring term of 1910, at Bathurst, 685 boys and 52 teachers participated. At the Autumn School at Nowra 516 boys and 45 teachers were present.

There are three special kindergarten schools in connection with the public schools. Their enrolment in 1910 was 507 boys and 470 girls, with an average attendance of 663. In addition to these kindergarten schools, the majority of large schools are equipped for kindergarten classes under skilled teachers.

Apart from the schools under the control of the State there are private schools, many of which are conducted under the auspices of the religious bodies.

STATE AND PRIVATE SCHOOLS.

The total number of schools in operation at the end of each of the past ten years, inclusive of all private schools, is shown in the following table:—

Year.	State.	Private.	Total.
1901	2,818	889	3,707
1902	2,846	868	3,714
1903	2,862	841	3,703
1904	2,870	852	3,722
1905	2,901	853	3,754
1906	2,885	852	3,737
1907	2,918	806	3,724
1908	3,002	792	3,794
1909	3,075	789	3,864
1910	3,105	774	3,879

As to numerical strength, there was little advance during the first half of the period covered by the table. The policy of conveying children to central schools rather than of opening a large number of small schools is partly accountable for this. The granting of educational subsidies has in many cases obviated the necessity of increasing the number of small country schools, but during the last three years an advance is apparent, due mainly to the extension of small schools in scattered districts; and presumably, as the school population for some years past has been practically stationary, and as requirements have been met in former years, not much extension was necessary. The increase of the State Schools during the period has been 287 schools, equivalent to about 10 per cent.

As to the private schools, there has been practically a continuous drop in their number since 1901, when there were 889, until in 1910 there were 774, a decrease of 115. Included in these schools are those of the Roman Catholic denomination, which show a substantial increase, in contrast to the diminution of the private schools of an unsectarian character, the advance of the Roman Catholic Schools in the ten years since 1901, when there were 341, to 394 in 1910, being 15·5 per cent.

The figures given above are exclusive of the Sydney Grammar School, the Ragged, and Free Kindergarten, Schools, and the New South Wales Institution for the Deaf and Dumb and the Blind. The Ragged Schools numbered 5, with 8 teachers; the enrolment in 1910 was 273, with an average attendance of 146 children. These Schools are maintained entirely by private subscriptions, and are for the care and control of poor children in the thickly-populated parts of the metropolis. Clothes and food are provided when necessary. In consequence of the abolition of fees in the public schools and the general improvement in the social condition of the people there has been a considerable and continuous decrease in the attendance at these schools.

The Free Kindergarten schools are conducted by the Kindergarten Union of New South Wales. The chief source of revenue is private, assisted by a grant from the Government. There were 11 Free Kindergarten schools in 1910, with 53 teachers. The number of scholars on the roll during the December quarter was 626, of whom 607 were under 6 years of age. The average daily attendance was 414.

Provision is made for the education of deaf and dumb and blind children at the school in connection with the Institution for the Deaf and Dumb and the Blind. There were 139 children enrolled for December quarter, 1910. This institution receives an annual grant from the Government, and the school fees are remitted in cases where the parents are unable to pay. There are 18 teachers attached to the school, and the average daily attendance is 132.

TEACHERS.

The teachers in the public schools of the State at the end of 1910 numbered 6,262 (3,300 males and 2,962 females). These figures include 362 teachers of subsidised schools, and 303 students in the Training College. The average number of pupils per teacher, on the basis of the mean quarterly enrolment was 35, and the average attendance per teacher, 25, while the average quarterly enrolment of children per school was 67. The following table shows the classification of the teaching staff at the end of 1910:—

Grade.	Men.	Women.	Total.
High School Teachers	29	19	48
Principal Teachers...	2,212	312	2,524
Mistresses of Departments		213	213
Assistants	859	1,808	2,667
Pupil-teachers	8	28	36
Students in Training	154	149	303
Sewing-mistresses		109	109
Subsidised School Teachers	38	324	362
Total	3,300	2,962	6,262

Included among these teachers are 166 men and 56 women who hold University degrees.

The State school teachers are graded and obtain promotion after passing a series of examinations, which are framed to test their progress in scholastic attainments as well as their skill in imparting knowledge. For long and meritorious service, however, a teacher may receive promotion from one section to another in the same grade.

At the beginning of the year 1908 new regulations were introduced dealing with the classification of schools, and with the salaries, classification, and promotion of teachers. Previously the salaries paid to classified teachers in charge of schools depended entirely on the classification of their schools as determined by the average attendance. Under the present system the classification is rendered more stable by restrictions upon the transference of schools from class to class, and arrangements have been made by which the teachers' promotion depends not only on the promotion of their schools but also on the improvement of their qualifications. To qualify for a higher grade the teachers must pass a series of examinations, but to obtain promotion they must show also the requisite degree of efficiency in practical work.

The range of salaries paid as at June, 1911, to principal teachers of State Schools is shown in the following statement:—

Class.	Range of Salaries.				Number of Teachers in each Class.	
	Men.		Women.		Men.	Women.
	£	£	Girls' Depts. £	Infants' Depts. £		Girls' Depts. Infants' Depts.
1	350	400	230	204	64	41 66
2	280	324	200	192	41	39 33
3	240	280	200	180	89	26 12
4	186		.....	.....	363	.....
5	150	198	150	180	593	21
6	100	150	100	138	444*	33
7	100	156	100	132	613	256

* Includes a few women teachers.

For other grades of service the general range of remuneration is as follows:—

	£	£	Number of Teachers.
Mistresses of separate Infants' Departments	144	204	8
Assistants—Men	102	266	567
Women	96	192	940
Ex Trainees—Men	96	168	252
Women	90	120	238
Ex Pupil Teachers—Men	90	96	20
Women	84	90	546

In addition to these rates, special allowances are made to teachers of District schools and to teachers of special subjects, such as Science, Manual Training, Cookery, &c. If married, teachers in charge of schools are granted residences, or rent in lieu. Extra allowances may also be granted to teachers stationed in remote localities, where the cost of living is high. Teachers in half-time schools are paid at the same rates as those in public schools of corresponding classification, and teachers of house-to-house schools receive £5 per head of average attendance, with a maximum of £90 per annum, or an annual salary ranging up to £104. Since the beginning of 1911, all male teachers are eligible for a minimum salary of £110 per annum on attainment of age 21.

The following table shows the number of teachers employed in State and Private Schools during the last ten years :—

Year.	Teachers.		
	State Schools.	Private Schools.	Total.
1901	5,212	3,353	8,565
1902	5,401	3,339	8,740
1903	5,539	3,363	8,957
1904	5,609	3,396	9,095
1905	5,719	3,482	9,201
1906	5,758	3,557	9,315
1907	5,965	3,524	9,489
1908	6,012	3,501	9,513
1909	6,176	3,633	9,809
1910	6,262	3,602	9,864

In State Schools, excluding Evening and Subsidised Schools, there was, at the end of 1910, one teacher for every 25 pupils in average attendance, and in private schools 1 teacher to 13 pupils. The figures for the latter schools, however, include a number of teachers who do not devote the whole of their time to one school.

CONTINUATION SCHOOLS.

Previously to the year 1910 evening schools were maintained with the object of affording instruction to those who had failed to receive the full advantage of primary education. As the need for thus simply completing an unfinished primary course became subordinated to the imperative demand for an evening-school system to serve the requirements of pupils who had completed their primary school work, it became necessary to modify and adjust the evening school organisation accordingly. Consequently, the evening schools now comprehend two distinct types of training, viz., the primary schools to complete elementary education, and the continuation schools, properly so-called, to provide instruction on special lines for persons engaged in daily employment. At the end of 1910 there were 36 evening (primary) schools in operation, with 548 pupils in attendance.

Continuation schools were organised early in 1911. They are of two kinds, viz., artisan and commercial, and in the earlier stages were available only for boys and youths. They were opened in populous suburbs of Sydney and Newcastle, and in the last quarter of 1911, 15 such schools had been opened. The commercial schools were opened in such districts as Mosman, Petersham, Gladstone Park (Balmain), Cook's Hill, Cleveland-street, &c.; the artisan schools at Paddington, Newtown, Rozelle, Wickham, &c. The enrolment was heavier at commercial than at the artisan schools, but both types have been well supported. In connection with the system the question of compulsory attendance has been the subject of much discussion, particularly as the responsibility for the direction of military training of youths for the Commonwealth Defence Force has been imposed upon, primarily, the State school teachers. Opportunity offers for an arrangement which will enable both education and training to be enforced with satisfaction to teachers as well as pupils. In the last quarter of 1911 continuation schools for girls were open at Lithgow and at Newtown, the course of instruction covering cookery, domestic science, hygiene and housewifery. In connection with the teaching of domestic science cookery classes were conducted during 1910 at 59 public schools in addition to the classes held at the Technical College, and the special course of instruction given at the Parramatta Industrial School for Girls. The attendance at public school classes numbered 2797 in the junior section, and 1,825 in the senior section. At the end of 1910 the trained teachers on the cookery staff in public schools numbered 50.

To the Technical College two-year course in cookery and domestic economy three scholarships are available. The course is given with the object of preparing students to become teachers, and it is from this institution that most of the teachers in the public schools have graduated.

Considerable attention has been given to the question of establishing a separate college for the teaching of all branches of domestic science, but no definite practical action has yet been taken in this direction.

During 1910 the supply of new teachers available was as follows:—Ex-students of Training College, 156; small school teachers, 173; junior assistants (ex-probationary students), 114; 241 places fell vacant during the year from various causes. The teaching staff will, however, be reinforced considerably, when the recently-introduced short course scheme of training becomes fully operative.

TRAINING OF TEACHERS.

Until the year 1905 the teachers in the State Schools, with few exceptions, commenced their career between the ages of 14 and 16 years as pupil-teachers. As such they were charged with the instruction of a certain number of children; in return for their services they received instruction and practical advice from the principals of the schools where they were employed, in addition to a small salary. After serving four years, those who passed the qualifying examinations were admitted to a course at the Training Colleges—the males at a non-residential institution in connection with Fort-street Model School; and the females at Hurlstone College, where residence was provided for them.

The pupil-teachers who did not enter the training schools were appointed as assistants, or were placed in charge of small schools, and after a lapse of time were allowed to compete on the same footing as the trained teachers. There was also a large number of practically untrained teachers, who had entered the service as teachers of small schools in outlying districts, many of whom, by perseverance and natural aptitude, had attained positions of considerable importance.

The inadequacy of the whole system for maintaining an efficient and well-trained body of teachers becoming apparent the pupil-teacher system was abandoned, and now no new teacher is appointed until efficiently trained. In order to carry out this scheme in its entirety, it is intended to establish a properly-appointed training college where teachers may be trained for private schools as well as for the State service. In connection with the training of teachers the examinees tested during 1910 numbered 4,225, including 1,839 probationary students and candidates for scholarships and for training.

Meantime, the training schools at Hurlstone and Fort-street being closed in 1905 the main work of training is carried on at the Blackfriars Public School, and at Hereford House School, Glebe, as the best available institutions convenient to the University and Technical College, pending the erection of a new building.

The course provided at the Training College extends over two years, during which opportunities are given to students to graduate at the University. To those who show exceptional ability, a third year is allowed in which to continue their studies in special directions. During the second year courses are provided to prepare students for special work, such as a period at the Hawkesbury Agricultural College for teachers of rural schools, and Kindergarten infants' courses for those who contemplate work in this branch of the service.

Practical training forms a most important part of the work of the College, and a Practice School, established at Blackfriars, has been specially staffed so that the students are enabled to develop their professional work by observation of good models, and to obtain practical experience under efficient

masters. In January, 1910, a new school at Newtown North was opened as a practice and observation school. The students also attend demonstration and criticism lessons in other school departments in the metropolitan district. There were 432 students—189 men, and 243 women—in attendance at the various courses in the beginning of 1911. The majority of these, viz., 122 men and 164 women, were first and second year students.

In connection with the training of teachers a diploma in Education may be granted in the Arts or Science courses at the University to graduates who have passed through a general professional training in the principles, art, and practice of education. The work of the diploma course at the University may be completed in one year.

In order to attract an adequate supply of teachers for the State schools a liberal scheme of scholarships has been established in connection with the Training College. An annual travelling scholarship is also awarded to ex-students, and the Council of the Women's College within the University offers a residential scholarship to women students of the Teachers' College attending the University.

The minimum age of admission to the Training College is fixed at 17 years, and it is desirable that the students should attain before entrance a standard of general education which will enable them to devote the two-year course at the college to professional study and practical work. A preparatory course, extending over two years, is therefore provided for probationary students at District Schools, established in connection with various Superior Public Schools. By the distribution of these courses throughout country centres it is expected that the future teachers will be drawn from the rural as well as from the urban districts. By means of scholarships, providing free education during the first year and monetary assistance during the second year, opportunities are afforded to all classes of boys and girls to enter the profession.

To obviate the difficulty of obtaining suitable teachers for small schools in outlying districts, competitive examinations are held, and the successful candidates are admitted to a course of training and instruction for six months at Hereford House School, the first trainees, viz., 45 men and 54 women, entering in February, 1911.

In 1911 a six-months' course of training for rural school teachers was projected, the intention being to have two sessions annually, and so to train 200 teachers each year for the rural schools of the State.

Teachers' associations have been formed in many districts, with the object of keeping the teachers in touch with modern educational methods. Meetings are held at frequent intervals for the discussion of educational topics; addresses are delivered, and demonstration and practical lessons are given on subjects of professional interest. Circulating libraries have been established by a large number of these associations.

In isolated districts, where the teachers are unable to be present at these meetings, they are allowed to attend for a short period, from time to time, at larger schools.

Summer schools are held regularly to improve the skill and knowledge of teachers. During 1910-11, in addition to the usual summer school at Hawkesbury Agricultural College, schools for art work, music, and physical culture were conducted. Schools of instruction are regularly held by inspectors.

ENROLMENT OF SCHOLARS.

In order to obtain a review of the comparative enrolment of school children in public and private schools, it is necessary to ascertain the enrolment of scholars for a given period. Such an enrolment is available only for the last quarter in each year, the figures for private schools being supplied for that quarter, and not for the whole year.

The following table shows the distribution of children in public and private schools for the December quarter during each of the last ten years :—

Year.	In Public Schools.	In Private Schools.	Total Children.	Proportion of Total Children Enrolled.	
				In Public Schools.	In Private Schools.
				per cent.	per cent.
1901	210,588	60,282	270,870	77.7	22.3
1902	210,726	58,939	269,665	78.1	21.9
1903	211,558	58,258	269,816	78.2	21.8
1904	207,860	57,811	265,671	78.2	21.8
1905	206,010	57,854	263,864	78.1	21.9
1906	207,298	58,707	266,005	77.9	22.1
1907	209,229	57,440	266,669	78.2	21.8
1908	214,495	57,111	271,606	79.0	21.0
1909	213,739	58,361	272,100	78.6	21.4
1910	214,776	59,247	274,023	78.4	21.6
Average for period	210,628	58,401	269,029	78.7	21.3

The figures in the column relating to total children disclose a condition of stagnation as to numerical strength which has characterised the whole period under review, the total enrolment for 1910 being slightly more than 1 per cent. in excess of the number in 1901. This feature has been common to both types of school, as evidenced in the average figures at the foot of the table, and is to be attributed mainly to the decline in the birth-rate of the State in recent years.

The relative enrolment of the two types of school, as shown by the percentage distribution in the last two columns, exhibits very little deviation from the average rates per cent., and the proportional figures, viz., 79 per cent. of total children for public schools and 21 per cent. for private schools, may therefore be regarded as indicative of the degree of preference in each case on the part of the general public.

The following tables provide comparative views of the aggregate enrolment in all schools (public and private) for the December quarter during the last ten years; and the figures, being on the same planes of comparison for each year, may be accepted as illustrative of the progression of each type of school during the period.

The first table contains the numerical enrolment and its constituent subdivisions; and the second table supplies the ratios per cent. which such subdivisions bear to the aggregate enrolment, thus providing a ready means for comparisons :—

Year.	Total	Public Schools— Denomination of Children.					Private Schools— Denomination of Schools.		
		Church of England.	Roman Catholic.	Presbyterian.	Methodist.	Other.	Church of England.	Roman Catholic.	Other.
1901	270,870	109,876	31,054	23,511	24,971	21,176	3,966	41,486	14,830
1902	269,665	110,615	30,957	23,586	26,201	19,367	4,263	40,868	13,808
1903	269,816	110,843	31,308	23,841	26,849	18,717	4,466	40,989	12,803
1904	265,671	109,658	30,233	23,829	28,240	15,900	4,116	41,112	12,583
1905	263,864	108,333	29,985	24,070	28,603	15,019	3,954	41,268	12,632
1906	266,005	108,497	30,636	24,207	28,866	15,092	3,922	42,106	12,679
1907	266,669	109,306	31,436	24,453	28,954	15,080	3,434	42,005	12,001
1908	271,606	112,728	32,209	24,913	29,581	15,064	3,415	42,295	11,401
1909	272,100	113,019	31,190	24,941	29,582	15,007	3,308	43,615	11,438
1910	274,023	114,677	30,937	25,021	29,640	14,501	3,500	44,249	11,498

PERCENTAGE OF TOTAL ENROLMENT.

Year.	Total.	Public Schools— Denomination of Children.					Private Schools— Denomination of Schools.		
		Church of England.	Roman Catholic.	Presby- terian.	Methodist.	Other.	Church of England.	Roman Catholic.	Other.
	%	%	%	%	%	%	%	%	%
1901	100	40·56	11·46	8·68	9·22	7·82	1·46	15·32	5·48
1902	100	41·02	11·48	8·75	9·72	7·18	1·58	15·15	5·12
1903	100	41·08	11·60	8·84	9·95	6·94	1·66	15·19	4·74
1904	100	41·28	11·38	8·97	10·63	5·98	1·55	15·47	4·74
1905	100	41·06	11·36	9·12	10·84	5·69	1·50	15·64	4·79
1906	100	40·79	11·52	9·10	10·85	5·67	1·47	15·83	4·77
1907	100	40·99	11·79	9·17	10·86	5·65	1·29	15·75	4·50
1908	100	41·50	11·86	9·17	10·89	5·55	1·26	15·57	4·20
1909	100	41·54	11·46	9·17	10·87	5·51	1·22	16·03	4·20
1910	100	41·85	11·29	9·13	10·82	5·29	1·28	16·15	4·19

The figures in the above tables are exclusive of the Sydney Grammar School, Business and Shorthand Schools, and the School held in connection with the Deaf and Dumb and Blind Institution, the Ragged Schools, and Free Kindergarten Schools.

The only denominations which have maintained their own schools to any material extent are the Church of England and the Roman Catholic; and of these two the Roman Catholic unmistakably has shown the greater vigour in its educational work.

It will be noticed that in the public school figures the column headings indicate the denomination of the children, and in the private school figures the denomination of the schools. In the former case the religion of the child is clearly determined, but in the latter, the pupil, although attending a school of stated denomination, is not necessarily to be considered of that religion. It may be assumed, however, for purposes of comparison, that on the whole the religion of the child accords with that of the denomination of the private school he is attending, and on this basis we obtain the following comparisons:—

As to the children of the Church of England, its constituent percentages of the total children were—

Year.	Per cent. of Total Children attending School in —		
	Public Schools.	Church of England Schools.	All Schools.
	%	%	%
1901	40·56	1·46	42·02
1902	41·02	1·58	42·60
1903	41·08	1·66	42·74
1904	41·28	1·55	42·83
1905	41·06	1·50	42·56
1906	40·79	1·47	42·26
1907	40·99	1·29	42·28
1908	41·50	1·26	42·76
1909	41·54	1·22	42·76
1910	41·85	1·28	43·13

The percentage evidently has been very constant during the whole period for both classes of schools—public and private—the advance, on the whole, for the period covered by the table being 1 per cent. of the total school children enrolled, and the Church of England children at present attending public schools are to those attending their own denominational schools in the ratio of approximately 97 to 3.

As to Roman Catholic children, the figures appear as follows :—

Year.	Per cent. of Total Children attending School in—		
	Public Schools.	Roman Catholic Schools.	All Schools.
	%	%	%
1901	11·46	15·32	26·78
1902	11·48	15·15	26·63
1903	11·60	15·19	26·79
1904	11·38	15·47	26·85
1905	11·36	15·64	27·00
1906	11·52	15·83	27·35
1907	11·79	15·75	27·54
1908	11·86	15·57	27·45
1909	11·46	16·03	27·49
1910	11·29	16·15	27·44

Here is observed extremely slight fluctuation in the percentage attending public schools, and as to the denominational schools, the rates show a tendency to rise. The Roman Catholic children at present attending public schools are to those attending their own denominational schools in the ratio of 41 to 59.

AVERAGE ATTENDANCE.

The following statement supplies a comparison between the average quarterly enrolment and the average attendance for Public Schools. In this case the figures are derived from the rolls for all the quarters of the year, and not for the December quarter only. The pupils attending Subsidised Schools are included only for 1907 and subsequent years :—

Year.	Average Quarterly Enrolment.	Average Attendance during the year.	Ratio of Attendance to enrolment.
			per cent.
1901	212,725	154,404	72·6
1902	212,848	155,916	73·3
1903	213,318	154,382	72·3
1904	211,489	153,260	72·5
1905	209,227	152,105	72·7
1906	207,741	151,261	72·8
1907	213,709	152,607	71·4
1908	216,747	155,997	71·9
1909	218,248	160,080	73·3
1910	218,539	157,498	72·1

The ratio of attendance to enrolment in the case of Private Schools is taken from the roll for the December quarter only (except for the last four years, when the average daily attendance during the year is taken), and is as follows :—

Year.	Scholars on Roll, December Quarter.	Average Attendance.	Ratio of Attendance to enrolment.
			per cent.
1901	60,282	48,137	79·9
1902	58,939	47,195	80·1
1903	58,258	46,982	80·6
1904	57,811	46,667	80·7
1905	57,854	46,480	80·3
1906	58,707	46,942	80·0
1907	57,440	46,697	81·3
1908	57,111	48,203	84·4
1909	58,361	48,792	83·6
1910	59,247	49,351	83·3

The system of gauging the attendance at school, by reference to a periodic enrolment of greater or less frequency, affords a very indifferent test of the average continuity of the education received by the pupils.

The method hitherto followed has been the adoption of the quarterly enrolment as the standard for comparison of children under tuition, and by means of the average attendance the degree of constancy in the education of children has been determined. It can be shown readily that such a mode of measuring attendance is empiric, conveying false impressions.

The yearly, quarterly, or even weekly, rolls of the pupils are in reality functions of the same variable, known as *daily attendance* (which is really a daily roll), and the longer the intervals of compiling the roll, whether for a week, a quarter, or a year, the greater the error introduced by multiple enrolment into the basis of comparison.

For instance, it is found by the Department of Public Instruction that 13·5 per cent. of this gross yearly enrolment must be deducted to obtain the number of individual pupils enrolled. Furthermore, the effective quarterly enrolment is found to be only 90 per cent. of the yearly roll, and the weekly roll again only 91 per cent. of the quarterly.

Of all the methods hitherto utilised the weekly roll is clearly the best, inasmuch as it most nearly approaches the basis (daily) on which the average attendance is computed, but preferably the average attendance of scholars should be compared with the total children who can be regarded as in need of education. The number of such children can be ascertained very closely; certainly to a much nearer degree than exhibited by the gap between the weekly and quarterly enrolments hitherto in use.

To reduce the disproportion between attendance and enrolment, and to secure the enrolment of all children of school age, an amendment of the Public Instruction Act was introduced recently in the State Parliament, to enable the Department to deal more stringently with truants and children who fail to attend a school regularly.

Taking as a basis the number of children under tuition, estimated on the plan just proposed, the following table, showing the proportionate attendance in public and private schools, is obtained:—

Year.	Estimated children of school age. (6-14).	Other Children under and over school age on roll.	Total Children requiring education.	Average Attendance, Public and Private Schools.	Proportion per cent. attending school.
1901	264,200	44,509	308,709	202,541	65·6
1902	266,500	44,907	311,407	203,111	65·2
1903	265,400	44,682	310,082	201,361	64·9
1904	266,100	44,603	310,706	199,927	64·3
1905	264,200	40,352	304,552	198,585	65·2
1906	262,500	41,436	303,936	198,203	65·2
1907	260,800	43,111	303,911	199,304	65·6
1908	259,400	42,551	301,951	204,203	67·6
1909	259,200	43,242	302,442	208,872	69·1
1910	257,900	44,364	302,264	206,849	68·4

The figures in this table are exclusive of the Sydney Grammar School, Business and Shorthand Schools, Ragged and Free Kindergarten Schools, and the school in connection with the Institution for the Deaf and Dumb and the Blind.

AGES OF SCHOLARS.

The ages of scholars at State Schools during the last ten years are shown in the following table, which is an approximate statement, based on the mean quarterly enrolment :—

Year.	Under 6 years.	6 years and under 14.	14 years and over.	Total.
1901	10,262	182,580	19,883	212,725
1902	8,777	182,962	21,109	212,848
1903	8,413	182,421	22,484	213,318
1904	8,559	180,480	22,450	211,489
1905	7,430	182,460	19,337	209,227
1906	8,302	180,228	19,211	207,741
1907	8,762	184,858	20,089	213,709
1908	8,933	187,750	20,064	216,747
1909	9,613	189,074	19,561	218,248
1910	10,140	188,770	19,629	218,539

The ages of children enrolled at Private Schools during the December quarter of each of the last ten years are as follows :—

Year.	Under 6 years.	6 years and under 14.	14 years and over.	Total.
1901	6,019	45,918	8,345	60,282
1902	5,507	44,918	8,514	58,939
1903	5,336	44,473	8,449	58,258
1904	5,193	44,214	8,404	57,811
1905	4,848	44,269	8,737	57,854
1906	4,972	44,784	8,951	58,707
1907	4,859	43,180	9,401	57,440
1908	4,839	43,549	8,723	57,111
1909	5,007	44,293	9,061	58,361
1910	5,180	44,652	9,415	59,247

CAREERS ADOPTED ON LEAVING SCHOOL.

During 1910 the departures recorded from State Schools numbered 11,660 boys, and 9,785 girls. Of these, 5,941 boys, and 5,130 girls nominally passed to other schools, State or private. A review of the reasons given, or the careers adopted in the remaining cases, viz., 5,719 boys, and 4,655 girls, is of interest :—

Object of Leaving School.	Boys.	Girls.
To continue in technical classes	130	...
To enter the University	38	1
Public Service... ..	446	121
Business Colleges... ..	...	122
Professions	295	12
To take up Commercial pursuits	1,132	193
Agricultural pursuits	842	...
To follow Building trades	329	...
Carrying, &c.... ..	304	...
Mining	242	...
Metal	82	...
Clothing ... ..	...	491
Other skilled trades... ..	260	39
Unskilled trades	310	...
To become Shop Assistants	535	82
Factory workers	224	73
Domestic workers—		
Home ... ..	...	3,353
In service ... ..	...	168
Miscellaneous	550	...
	5,719	4,655

MEDICAL INSPECTION.

In 1907, arrangements were made for the medical inspection of children in the State schools. Three medical officers are now attached to the Department of Public Instruction in this connection, but inspections have been restricted mainly to schools in the most populous centres of Sydney and Newcastle. During 1910, 127 schools, having an enrolment of 75,854 pupils, were visited, and 21,558 cases, representing 21 per cent. of the number of children in attendance, were apparently suffering from some physical defect. The defects disclosed are summarised as follows :—

Defect.	Boys.	Girls.	Total Cases observed.	Ratio per cent. of total defects.
Defective Vision and Eye Diseases...	3,539	5,112	8,951	41.5
Post-nasal Trouble ...	3,479	3,155	6,634	30.8
Throat Trouble ...	1,274	1,505	2,779	12.9
Diseases of the Glands ...	366	286	652	3.0
Other Complaints ...	1,305	1,237	2,542	11.8
	10,263	11,295	21,558	100.0

In all cases the children concerned were advised to apply to the family doctor for treatment.

It is noticeable that more than half the number presented were girls ; further, that the eyesight of girls is, on the whole, worse than of boys ; and that cases of defective vision are more frequent in the metropolis than in country districts. Many of the defects are, of course, slight. These matters will be discussed in greater detail in part "Social Condition." In the endeavour to rectify the abnormalities discovered, the medical inspectors have delivered addresses to parents ; attention has been given to school architecture, sanitation, &c. Special schools for mentally defective children are under consideration. The New South Wales Institution for the Deaf, Dumb, and Blind, mentioned previously, is subsidised by the State through the Department of Public Instruction.

In connection with the Teachers' Training College, a school clinic was established during 1910 to provide opportunity for training women students to take the Infant Teachers' Course. The students are trained to observe children, and to treat simple ailments.

PHYSICAL AND MILITARY TRAINING.

At the close of 1910, there were in the State schools 7,000 cadets in Metropolitan and Country Corps, in addition to senior companies at the Sydney Boys' High School, Fort-street Model School, Hurlstone Agricultural High School, and Cleveland-street School. The ranges in use numbered 239, including 75 miniature rifle ranges constructed during 1910. On the 1st July, 1911, the State Schools' organisation of senior mounted and school cadets was superseded by the Commonwealth compulsory training system, initiated in the latter half of 1911 ; the first half of the year had been devoted to the preparation of candidates for posts as non-commissioned officers in the forces. The State Department of Public Instruction acts in co-operation with the Defence authorities, since the responsibility for carrying out the defence scheme devolves largely upon teachers. To complete their year's training, junior cadets must serve for 120 hours, and this time is arranged in periods of 2½ hours per week for 44 weeks. Elementary marching drill occupies one half-hour per week, and the optional subjects include miniature rifle shooting, swimming, running exercises, and, first aid. Senior

cadets (14–18 years) attend weekly drills after school hours; and 6 half-day musketry parades per annum are required, in addition to 4 whole day parades, and 6 half-day parades on public holidays or Saturdays. Senior cadets having now the option of choosing whether they will drill with the school unit or the area unit, may be enrolled in the school corps. Upon reference to page 43, full information may be obtained regarding Defence and the system of universal military and naval training.

To secure the efficiency of the teaching staff for the universal training of cadets, a summer school of instruction for teachers is arranged—the course to cover physical training, drill, shooting, swimming, first aid, &c.

HIGHER EDUCATION.

The State has made provision for higher education by the establishment of High Schools, Superior Public Schools, and District Schools.

Complete secondary courses, extending over four years, are provided at the High Schools, and the syllabus of secondary school work recently issued aims at an intermediate and leaving certificate to eliminate a multiplicity of examinations now held by various bodies and to secure uniformity and a standard in secondary schools. In 1910 there were five High Schools—two in Sydney and two in Maitland, one in each place being for boys and the other for girls, and one in Newcastle where both boys and girls attend. The total enrolment for the year was 1,168. The boys numbered 671 and the girls 497. The average daily attendance was 826. The expenditure amounted in 1910 to £11,530, and the fees received to £3,575, so that the net cost to the State was £7,955, or £6 12s. 2d. per head of the total enrolment. The holders of scholarships and bursaries in attendance during the December quarter numbered 246 and 162 respectively.

Since the beginning of 1911, when High School fees were abolished, applicants for admission to High Schools must obtain a qualifying certificate to show their fitness to undertake High School work. Upon the satisfactory completion of two years' work an intermediate certificate is awarded. The leaving certificate is awarded on completion of the full four years' High School work. The courses are designed as preparation for various types of vocation:—(a) A general course leading to professional study in higher institutions; (b) a commercial course preparatory to business careers; (c) a technical course; (d) a domestic course, qualifying for home management.

Instruction for two years beyond the primary course is given at the Superior Public Schools. The course is designed for pupils between the ages of 13 and 15 years who have satisfactorily completed the primary course. These schools continue the work of the primary schools, but on a more practical basis, and such additional subjects are taught as will enable pupils to compete at the public examinations.

By establishing efficient schools in country districts and adapting the curriculum to practical requirements by instruction in agriculture and manual arts, much may be done to develop the natural resources and to check the abnormal growth of the metropolitan centre at the expense of the rural districts. District Schools have therefore been established in twenty-eight country towns as adjuncts to the Superior Public Schools, and supply an additional two-years' course of study as higher education for country children. The course includes instruction in science, manual training and agriculture, and the practical application of these principles. The District Schools also serve as preparatory training schools for young people who desire to enter the teaching profession.

In 1910, at the public examinations held in connection with the University, 86 pupils of the High Schools passed the junior, 17 the senior, 72 qualifying for matriculation. Of the pupils attending the Superior Public

and District Schools, 305 passed the junior and 18 the senior examinations; 17 of the senior passes, and 128 of the junior, were gained by the pupils of Fort-street Model School, Sydney, which has been made a centre for advanced students from all the suburban districts, and lately the upper sections, Boys' and Girls', have been elevated to the rank of High Schools, thus increasing the number of such schools to seven in 1911. Of the total passes of all candidates from New South Wales at the junior examination in 1910, 40 per cent. were obtained by pupils attending the State schools.

In addition to the various classes of State Schools, the Sydney Grammar School receives an annual subsidy from the Government. This school was incorporated by an Act of Parliament of 1854, and was established to confer on all classes and denominations of British subjects the advantages of a regular and liberal course of secondary education. The Act authorised the payment of £20,000 for the erection of school buildings, and an annual endowment of £1,500. There were 25 teachers in 1910, and 552 scholars were enrolled in the December quarter, the majority being over 14 years of age. The average daily attendance was 536.

The principal religious bodies provide high schools and colleges, in which the work performed is, in the main, supplementary to the educational work undertaken in the Primary State Schools. Evidence of the progress of superior denominational schools may be seen in the magnificent college buildings which surround the city, among which may be cited the old-established King's School at Parramatta, Newington College, the Catholic Colleges at Hunter's Hill and Riverview, the North Sydney Church of England Grammar School, the Scots' College, the Presbyterian Ladies' College at Croydon, and many other first-class establishments.

In connection with secondary education the Department of Public Instruction, in the latter half of 1911, appointed an inspector of secondary schools within the department; as there is no control by the State of secondary or other schools outside the departmental schools the inspector's work will be limited primarily to the State High Schools.

COMMERCIAL EDUCATION.

Preparatory education for commercial life is provided in the State schools by means of the curricula of classes in which youths are coached for the commercial certificates issued in connection with the University public examinations, and special preparation is given in the Commercial Continuation Schools recently established.

The records of the Department of Public Instruction show that, during 1910, 1,132 youths, viz., 735 from city schools and 397 from country schools adopted commercial pursuits on leaving school; while of the girls who quitted State schools during the year, 193 started as clerks or typists, and 122 entered business colleges for further training.

Private schools and colleges provide ample facilities for commercial training, both by day and evening classes, and advanced preparation for commercial life is provided in the University lectures for the diploma in Economics and Commerce. The leaders among commercial men have given considerable attention to the question of extending this section of the University teaching, which was originally promoted by the Sydney Chamber of Commerce in the form of brief lecture courses available to the general public, and in examinations conducted for senior and junior commercial certificates issued by that body. In the projected extension, for which financial support has been promised from the Government, the diploma course will be converted into a full degree course; separate chairs for applied chemistry and for political economy are strongly desired, and the hope is entertained that with the advent of the former Chair opportunity would offer for practical research

work that would be of incalculable benefit to Australian industries. Such industrial research work is warranted by the necessity for keeping abreast of similar movements now being developed, particularly in numerous Universities and higher colleges of the United States of America.

BUSINESS COLLEGES AND SHORTHAND SCHOOLS.

Students at many of the State and ordinary private schools are being educated in business methods, and this branch of education is undertaken also at the Technical schools of the Department of Public Instruction.

A return of the number of pupils taught in these special subjects is not available, but the following statement shows that many persons annually receive instruction at Business and Shorthand Schools which are entirely under private management, and the pupils attending which have passed the school age—Bookkeeping, Business Methods, Shorthand, and Typewriting are the main subjects taught:—

Year.	Schools.	Teachers.	Enrolment.			Average Attendance.			Total Fees Received.
			M.	F.	Total.	M.	F.	Total.	
1907	17	73	1,776	1,185	2,961	1,137	699	1,836	£ 11,447
1908	19	96	2,430	2,237	4,667	1,301	1,281	2,582	16,509
1909	18	99	2,177	2,558	4,735	1,069	1,230	2,299	16,293
1910	18	101	2,492	2,638	5,130	1,316	1,184	2,500	17,159

TECHNICAL EDUCATION.

Technical education in New South Wales has grown fortuitously, and urgent necessity of a well-organised scheme of industrial education is now generally recognised. The efforts of the Department of Public Instruction are restricted by the limited funds at its disposal, but the plans for technical instruction during recent years have shown steady progress.

During 1910 the greatest advance in new classes occurred in the Trades' Department of the Central College. Teaching by correspondence was initiated successfully in two departments, and in the country important extensions included wool-classing in pastoral areas, and electricity as applied to mining in the Newcastle and Maitland coal-fields.

The foundation of the New South Wales Technical School was due in great measure to the efforts of a few enthusiasts connected with the Sydney Mechanics' School of Arts; and, as far back as 1873, it was decided to establish a Technical College, affiliated to that institution, with the object of improving the scientific knowledge of Australian artisans. In the year 1878 a sum of £2,000 was granted by Parliament towards the organisation of a Technical College, and the work of the institution was carried on in connection with the School of Arts. In 1883, however, a board was appointed by the Government to take over the management, and the Technical College then became a State institution. In addition to the classes held in the metropolis, lectures were delivered in country towns, and wherever sufficient support was given classes were established.

Towards the end of 1889, the Board was dissolved, and the Technical College placed under the direct control of the Department of Public Instruction. The first step taken by the Department was to provide suitable accommodation for the classes, by the erection of the Technical College, at Ultimo. This central College was opened for the reception of students in January, 1892, and has, since that date, been subjected to extensive additions and alterations, of which may be mentioned an auditorium, opened in August;

1911, to accommodate at least 1,000 persons. Additional land has also been secured, and the College block now comprises 6 acres.

Colleges have been established in the more important country centres—Bathurst, Newcastle, Maitland, Goulburn, Albury, Broken Hill, and Granville; and classes are held in many other country towns.

The course of instruction includes individual subjects, numbering 131, classified in the following departments, viz., agriculture, architecture, art, biology, chemistry, domestic economy, mechanical and electrical engineering, sanitation, geology and mining, printing and lithography, modelling, painting, industrial and decorative art, commercial, mathematics, sheep and wool, women's handicrafts, and miscellaneous subjects, comprising bootmaking, leather-dressing, naval architecture, saddlery, tailors' cutting, history, and geography. In the suburban and country districts the most popular classes are cookery, dressmaking, and millinery, and carpentry. In order to meet the demand for teachers of domestic science and dressmaking, special courses of training have been arranged at the College at Ultimo.

In the large centres of population outside the city, the courses of instruction have been adapted to the requirements of the local industries. Thus, at Cobar, there are classes in assaying and mineralogy; Granville, in trades-drawing and coach painting; at Balmain, in naval architecture; at Lithgow, in iron and steel manufacture; and at Maitland and Newcastle, in electricity as applied to mining; and in connection with Broken Hill Technical College the establishment of a school of mines for the Barrier District is under consideration.

A large proportion of students attend evening classes for the purpose of receiving instruction only in a few subjects which are directly related to their daily occupations. They are, in the majority of cases, apprentices who devote their earnings to courses of theoretical instruction with the object of becoming efficient tradesmen. In the absence of other provision for this class of students, they have in the past been encouraged to attend the college, but trade or continuation evening schools are now being provided for them, and further reorganisation of Technical College work is contemplated with a view to the concentration of Art Classes, exclusive of Applied Arts, under a Director of Art, and the transfer of commercial classes to a special advanced continuation school. Thus the work of the Technical College will be restricted purely to Technology.

In the Central College buildings a Technical High School is conducted with the object of preparing boys for the engineering trades and professions, and for architecture, the great developments now taking place in engineering and architecture making such a school a necessity. The course of instruction is designed to embrace subjects of cultural value, as well as those essential to a preliminary training for these professions. For girls, alternative courses of domestic science, dressmaking, and millinery are provided, and the course extends over two years. Well-equipped laboratories and workshops have been provided for scientific and practical instruction. This school, having been classified as a High School, fees are not charged.

In 1910, there were 886 classes in operation—176 in Sydney, 131 in the suburbs, 470 in country districts, and 109 in connection with public schools, the majority of the latter being for elocution and cookery. The aggregate fees received from scholars from public schools was £615. The technical teaching staff consisted of 11 lecturers in charge of departments, 7 resident masters in charge of branch schools, 229 salaried and assistant teachers, and 87 teachers remunerated by fees only. The gross enrolment of students numbered 22,822, of whom 14,469 attended in Sydney and suburbs, and 8,353 in the country. Some students attended more than one class, and the number of individual students was 15,839, with an average weekly attendance of 13,255. The

great extension of technical education during the last ten years may be seen in the following table :—

Year.	Classes.	Individual Students.	Expenditure.		
			Government.	Fees.	Total.
	No.	No.	£	£	£
1901	331	9,267	23,200	5,742	28,942
1902	431	10,405	26,197	7,278	33,475
1903	572	13,232	26,566	8,707	35,273
1904	647	13,221	25,964	8,824	34,788
1905	625	11,626	25,262	8,129	33,391
1906	654	12,401	26,879	9,306	36,185
1907	718	14,235	33,756	10,029	43,785
1908	790	14,866	51,814	11,207	63,021
1909	864	15,470	61,452	11,684	73,136
1910	886	15,839	65,723	11,387	77,110

The expenditure shown above does not include the amount spent on the Technological Museums.

AGRICULTURAL AND RURAL TRAINING.

For the boys of the present school generation education in subjects pertaining to rural industries is commenced in the primary schools of the State, with the teaching of the elementary principles of agriculture, both practical and theoretical. School gardens and experiment plots are adjuncts to the majority of State schools and, for these gardens, grants are made of farm, vegetable, and flower seeds.

In the District High Schools, of which there are twenty-eight, in various parts of the State, agricultural science classes are held regularly and experimental agricultural work is undertaken. At the Royal Agricultural Society's last Easter Show (1911) exhibits were received from 240 suburban and country schools. A special Agricultural School (Hurlstone) is established at Ashfield, and forms part of the Technical Education System; the grounds, covering twenty-six acres, are used for teaching practical operations and for experimental work in the growth of crops, action of fertilisers, &c. The course at this school extends over two years, and covers a general English education in addition to science and agriculture. During 1910, there were fifty-eight students on the rolls, of whom thirty-one were in residence. For resident students the fee is £6 6s. per quarter; for day students no fees are charged.

The training at Hurlstone Agricultural High School forms a preparatory course to the more advanced work at Hawkesbury Agricultural College and, from the school, three scholarships are available annually to the Hawkesbury College. The school has been endowed privately with a scholarship, known the "*Herald and Mail* Scholarship," in addition to liberal provision of scholarships by the State. At the Technical High School at Ultimo, a diploma course covering two years is available for evening students. In connection with agricultural teaching in the State schools, an Instructor in Agriculture was appointed in 1905 to travel over the State and assist teachers in planning and maintaining school gardens, in conducting experimental work, and in organising exhibition displays. In the Teachers' Training College, rural school teachers are now being trained.

Supplementary to the training given to pupils, under the State Education System, a graduated scheme of agricultural instruction has been organised in connection with the development of rural industries, by the State Department of Agriculture. This scheme provides the following institutions:—Apprentice Schools for lads between the ages of 16 and 20 years who intend to become agricultural workers. These schools are conducted in connection

with Experiment and Demonstration Farms at Cowra (mixed farming), Glen Innes, Grafton, Yanco (irrigation), Dural (orchard), and Raymond Terrace (viticulture) and, for the most part, offer one year practical courses at a charge of £5 per half-year.

Farm Schools, which provide a preparatory course for older lads to enable them to work their own farms are established in connection with the Experiment Farms at Wagga, Bathurst, Wollongbar, and Berry, and from them 592 students have passed; and in July, 1910, there were ninety-eight students in residence. At these Schools, scholarships are available as follows: Wagga, three; Bathurst, three; Wollongbar, one.

During recent years, lads have been received for short courses of agricultural training at the Casual Labour Farm at Pitt Town. From 1910 the whole establishment, converted into the Government Agricultural Training Farm, was devoted exclusively to the training of lads, particularly in connection with the Dreadnought Funds, publicly subscribed, of which the Government has undertaken the administration. During 1910, 177 lads were admitted for training and, at 30th June, 1911, sixty lads were in residence.

Hawkesbury Agricultural College provides higher agricultural education. At this College the average number of students in attendance during the year ended 30th June, 1910, was 190. The farm covers 3,440 acres, and accommodation is available for 200 students. From the establishment of the College to June, 1910, 1,274 students had passed through the College courses in addition to 477 State school teachers who attended Summer Schools, and 395 farmers who attended Winter Schools. The Diploma course at the College covers three years' work and, for the year 1909-10, twenty-seven students obtained this award. Certificates are obtainable for shorter courses and, under the direction of the College, Dairy Science Schools have been held in various centres for the benefit of factory managers and assistants. The College has been provided with eighteen scholarships and bursaries, as follows:—

By Department of Agriculture	...	...	...	...	...	3
By Department of Public Instruction—						
For Students of the Teachers' Training College	...	...	...	...	...	10
For Students of the Hurlstone Agricultural High School	...	...	...	...	...	3
By Messrs. J. Fairfax & Sons (<i>Sydney Morning Herald</i>)	...	...	...	...	...	1
By The <i>Daily Telegraph</i> Newspaper Co.	...	...	...	...	...	1

In addition to these scholarships, prize funds have been provided liberally from public and private sources.

The culmination of agricultural education and training in this State is in the University, where in the beginning of 1910 a Department of Agriculture was instituted. A four-years' course leads to the degree of Bachelor of Agricultural Science; and in providing a higher training ground for teachers and experts, completes the whole system of preparation for rural industries. The Experiment Farms of the State are available for the practical and experimental work in connection with the degree course.

In addition to the educational work undertaken, either under the State system of education, or in the development of rural industries, agricultural interests are developed by means of such institutions as Agricultural Bureaux, shows, &c. In regard to the agricultural shows, detailed figures are given in the part relating to agriculture.

AGRICULTURAL BUREAUX.

The Agricultural Bureaux are established under the aegis of the State Department of Agriculture; the objective is to further all rural industries, by gathering and disseminating information upon all matters of interest, whether it be in regard to production or distribution of crops, analysis of costs, prevention of disease, or merely the encouragement of social intercourse.

The publications of the Department, which include the *Agricultural Gazette*, and pamphlets on all manner of subjects, are freely available to persons interested. These Bureaux are subsidised by the Government, to the extent of 50 per cent. of the membership fees collected, and the branches established, up to August, 1911, numbering twenty-two, have an aggregate membership of 547. Lectures are given, and practical demonstrations made locally by experts from the Department of Agriculture; the lecture subjects are suited to the desires of the local members of the Bureaux.

SCHOLARSHIPS AND BURSARIES.

In order to encourage students, and to assist those who lack the necessary financial means to continue their education at the High Schools and the University, or in the industrial arts where manual skill is combined with technical knowledge, the scheme of State scholarships and bursaries was very considerably extended in 1908, and made comprehensive and practical. Awards are made, after competitive examinations which, with only few exceptions, are held half-yearly. As it is advisable to train pupils only in the schools of the metropolis or large towns, scholars and bursars are expected to attend the nearest school at which the scholarship or bursary is tenable. A scholarship or bursary may be withdrawn at any time if the conduct or progress of the holder is not satisfactory. For the purposes of awarding the scholarships and bursaries which are available for competition in the primary schools, the schools were divided into groups according to the attendance, and a certain number allotted to each group. In this way, the opportunities of pupils in small schools were equalised with those of larger town and city schools.

The scholarships, till 1910, were distinguished as High and District School, Agricultural, and Technical. From the beginning of 1911, when fees in High Schools, as in Primary Schools, were abolished, the conditions relating to scholarships and bursaries have been modified. To Technical and Agricultural Schools, and to the University, the scholarship system, as a relief from fees, is maintained. The agricultural scholarships, tenable for two years at the Hawkesbury Agricultural College, are awarded to students of Hurlstone Agricultural Continuation School. During 1910, 189 Technical Scholarships were issued.

The Junior Technical Scholarships to the number of 20 per annum are tenable for two years at a Technical College or School. The Intermediate Technical, 12 annually, are open to boys under 15 years of age still attending school, and enable them to attend the day courses of a Technical College. Of the Senior Technical Scholarships four are allotted for competition amongst youths under 18 years who are in employment, and entitle the holders to three years' tuition at the day courses of the Technical Colleges as well as an allowance of £20 per annum; and three are awarded to students of small Technical Schools to enable the holders to complete their course of instruction at a central college.

In the Cookery and in the Dressmaking Classes at the Sydney Technical College three scholarships in each class are awarded annually to girls over 18 years who desire to become teachers of these subjects. The scholarships are tenable for three years; but if at the end of the first year it is found that a student does not possess the necessary qualifications for teaching, the scholarship may be withdrawn.

Scholarships are also awarded in connection with the evening classes at the Technical College entitling the holders to one year's free tuition in the classes they are attending. Research scholarships may be awarded on the recommendation of the Lecturers to students who have completed their full course at the Sydney Technical College. The holders are entitled to the use of laboratories and apparatus, the work undertaken being under the supervision of the Lecturer in charge of the Department.

Since the beginning of 1911, High School Scholarships represent a grant to a maximum value of £1 10s. per annum for text-books, and conditionally on a statutory declaration being made by the parents, as to income, of a further grant in aid of maintenance or travelling, to a maximum of £30 per annum. The scholarships are to be tenable for four years, and are awarded annually, in January of each year, to students under 14 years of age, on the most meritorious passes for the qualifying certificate of entrance to the High Schools. In proportion to the relative enrolment in State and non-State Primary Schools of pupils, 6 to 14 years of age, scholarships are to be available to non-State School pupils. The number of scholarships available is to be determined annually; also the allocation to the different High Schools. Scholarships and bursaries current at the introduction of this latest system are to be maintained.

The Bursaries, distinguished as District and High School, Junior and Intermediate Technical, are open only to pupils of State Schools whose parents' incomes are not sufficient to enable their children to gain a higher education. A bursary may not be awarded to any candidate whose parents' income exceeds £300 per annum. In addition to free tuition and a grant for text books, a monetary allowance is made, or board and residence is allowed to bursars who attend the Agricultural School.

The District and High School Bursaries, 72 per annum, have hitherto been tenable for three years at a High, District, or Superior Public School or (in the case of boys) at the Sydney Grammar School or the Hurlstone Agricultural Continuation School. The Junior Technical Bursaries, numbering 20 per annum, are tenable for two years at a Technical College or School or Trade School. Eight Intermediate Technical Bursaries, tenable for three years at the day classes of the Sydney Technical College, are awarded in each year to boys who have attended a High School, or the higher primary classes of a District or Superior Public School, for two years.

Twelve Bursaries, six for boys and six for girls, tenable for three years at the Sydney University, are awarded annually for competition amongst pupils attending the High Schools, Public Schools, or, as State bursars, the Sydney Grammar School. The holders may enter the Arts or Science course without payment of fees, and are granted £5 per annum for text books, and a monetary allowance amounting to £20 to those who need not board away from home, and £50 if required to do so.

During 1910, 188 candidates gained State scholarships or bursaries. Of these, 71 boys and 35 girls obtained scholarships for High and Superior Schools; 47 boys and 20 girls, bursaries to High and Superior Schools; 4 boys, bursaries to Sydney Grammar School; and 6 boys and 5 girls, bursaries to the University.

By a private benefaction made during 1910, the F. S. Falkiner scholarship was instituted, which entitles the holder (who must have passed through the Hay District School) to education at the University, to text books, and board and lodging for four years.

There are also a number of scholarships and bursaries open to pupils of private schools, and tenable at the secondary schools controlled by the religious bodies or private persons.

IMPERIAL EDUCATION CONFERENCE.

This Conference, held in London in the beginning of 1911, was the outcome of an unofficial Conference convened in 1907, under the auspices of the British Empire League. To the Imperial Education Conference of 1911, delegates were sent from New South Wales and from West Australia, among the Australian States. The Director of Education in New South Wales, besides representing this State at the Conference, inquired generally into the working of Continuation Schools, and other matters. One result of the

Conference will be the collection and publication of information regarding the various educational systems, and their development in each State, with special reference to school curricula, the training of teachers, compulsory attendance and medical inspection.

THE UNIVERSITY.

The Act incorporating the University of Sydney was passed, and received the Royal assent on the 1st October, 1850.

An endowment of £5,000 per annum was then given from the public revenue for "defraying the stipends of teachers in literature, science, and art," and for purposes of administration; but no provision was made for teaching in other branches of learning. Authority was given to examine, and to grant degrees in law and medicine as well as in arts. The University was to be strictly undenominational, and the Act expressly prohibited any religious test for admission to any of its privileges, and degrees in Theology or Divinity are not conferred.

The first Senate commenced its labours at the close of the year 1850, and soon established three Chairs in Classics, Mathematics, and Chemistry and Experimental Physics. On the 11th October, 1852, the University was opened, and twenty-four matriculated students were admitted to membership.

In 1858 a Royal charter was granted, which declares that "the degrees of this University in arts, law, and medicine shall be recognised as academical distinctions of merit, and be entitled to rank, precedence, and consideration in the United Kingdom as fully as if the said degrees had been granted in any university of the United Kingdom."

Since the passing of the original Act various amendments have been made. In 1884 the Senate's powers as regards teaching and degrees were extended so as to provide instruction and to grant degrees or certificates in all branches of knowledge, with the exception of Theology or Divinity, subject to a proviso that no student should be compelled to attend lectures or to pass examinations in Ethics, Metaphysics, or Modern History; and the Act extended the benefits and advantages of the University in all respects to women equally with men. In 1900, all the various enactments were consolidated in the University and University Colleges Act.

An Act to provide for the establishment of colleges of residence in connection with religious denominations was passed in 1854, for the association of students in the cultivation of secular knowledge. The college tutors provide assistance to students in preparing for the University lectures and examinations. Under this provision three colleges have been established, namely, St. Paul's (Church of England), St. John's (Roman Catholic), and St. Andrew's (Presbyterian). Action is being taken at the present time for the foundation of a Methodist College. A college of residence for women was established in 1892, on a strictly undenominational basis.

The Government of the University is vested in the Senate, which consists of sixteen elective fellows, of whom at least twelve shall be laymen, and a maximum of six *ex officio* members, professors of the University. Vacancies are filled by election, for which purpose a convocation of persons entitled to vote must be held within sixty days of the first meeting of the Senate after the occurrence of the vacancy.

The State endowment of the University was £5,000 per annum until 1880, when £1,000 was added for assistant lectureships; in 1882 a further allocation of £5,000 was made for the establishment of schools of Medicine and Engineering, and to assist the Faculty of Arts. There were further grants, until in 1893 the Government endowment for general purposes amounted to £13,000, and the special grants to £6,595. In 1903 the endowment was placed upon a statutory footing at £10,000 per annum, the special grants amounting to £3,750. These included a sum of £2,000 per

annum as a provision for evening lectures, which had been initiated in 1882. In 1908 and 1909, £2,500 were added for the establishment of departments of Veterinary Science and Agriculture, and a sum of £5,000 is now voted annually for the maintenance of these departments. The Government also granted £4,000 towards the erection of a Veterinary School. During 1910 the amounts received from the Government for general purposes aggregated £18,800.

In 1873 the Government resumed land for the erection of the Royal Prince Alfred Hospital. This hospital was designed as a General Hospital and Medical School for the instruction of University students. For the training of nurses, clinical lectures are delivered in accordance with the University curriculum, and all appointments to the Medical and Surgical Staff of the Hospital are made conjointly by the Senate of the University and the Directors of the Hospital.

Sydney Hospital, founded in 1811, also provides a Clinical School under direction of a Board of Medical Studies, and all appointments of clinical lecturers and tutors are subject to the approval of the Senate. Other hospitals are recognised as places where studies may be undertaken in connection with the Faculty of Medicine, viz.: The Royal Hospital for Women, Royal Alexandra Hospital for Children, St. Vincent's Hospital, and the Gladesville and Callan Park Hospitals for the Insane.

In connection with the Department of Dental Studies, the United Dental Hospital of Sydney was established in 1901, and provides facilities for instruction of students. It was amalgamated with the Dental Hospital of Sydney in 1905. The University lecturers in Surgical and Mechanical Dentistry are, *ex officio*, honorary dental surgeons of the Hospital.

Many benefactions have been bestowed on the University by private persons. Among the first were gifts of £1,000 each from Mr. Thomas Barker, Sir Daniel Cooper, and Sir Edward Deas-Thomson, represented by lands which have multiplied in value. Many others followed, and at the close of 1910, the aggregate value of the original endowments was £475,363. Many prizes have been exhausted by award, but by careful investment, increases in value, unawarded scholarships and other causes these private foundations showed at 31st December, 1910, credit balances to the extent of £549,295. These endowments include a sum of £30,000, left by the late Mr. Thomas Fisher, for a library, and £6,000 given by the late Sir William Macleay for a Curatorship of the Natural History Museum, the collection contained in the Museum having been presented by him to the University, and for which the Government erected a suitable building. Bequests of property, other than money, are estimated to be worth £51,000; and the late Mr. John Henry Challis left his residuary estate to the University, subject to certain annuities. In December, 1890, the trustees of the Challis Estate handed over to the University the major part of the Australian portion of the estate, approximating to £200,000 in investments, together with a cash balance. The balance, bringing the capital of the fund to £276,856 upon the termination of the last annuity, was transferred to the University in 1905, and under the bequest the Senate has created Chairs in Law, Modern Literature, History, Logic and Mental Philosophy, Anatomy, Engineering, and Biology, and a Directorship in Military Science, in addition to five Lectureships in Law. To each of these, it has given the testator's name. The Hovell and Challis bequests constituted, until 1896, the only resources of the University for education apart from the public endowments. During 1896 Sir Peter Nicol Russell, (formerly of Sydney), devoted £50,000 to the purpose of endowing a School of Engineering, and this gift was supplemented by a further grant of £50,000 in 1904, with the stipulation that the Government should expend £25,000 upon buildings. Through this endowment, 7 Lectureships in Engineering have been established, in addition to

Assistant Lectureships and for Instructors in Mechanical Engineering. The benefactions made to the University during 1910 include a bequest of £500 from Miss Frances M. Busby, for the foundation of a musical scholarship, and smaller sums for prize funds. Donations of machinery, &c., were also received.

The teaching staff of the University now consists of 18 professors, 5 assistant professors, and 89 lecturers and demonstrators.

There are also 46 other assistants in various branches. The Chairs created, in addition to those established under the Challis Bequest, are as follows:—Agriculture, Chemistry, Education, Geology and Physical Geography, Greek, Latin, Mathematics, Pathology, Physics, Physiology, and Veterinary Science.

Within the University there are four faculties, viz., Arts, Law, Medicine, and Science, and in addition there are four Departments. The degrees and diplomas given in the Faculties and Departments are as follows:—

Faculty of Arts	.. ..	Bachelor of Arts. Master Diploma in Education.
Department of Economics and Commerce.		Diploma in Economics and Commerce.
Faculty of Law	... ..	Bachelor of Laws. Doctor
Faculty of Medicine	... ..	Master of Surgery. Bachelor of Medicine. Doctor Diploma in Public Health.
Department of Dental Studies.		Licentiate in Dental Surgery. Bachelor of
Faculty of Science	... ..	Bachelor of Science. Doctor
Department of Engineer- ing.		Bachelor of Engineering. Master
Department of Veterinary Science.		Licentiate in Veterinary Science. Bachelor of
Department of Agriculture " Military Science.		Bachelor of Science in Agriculture. Diploma in Military Science.

From the foundation of the University to the 30th June, 1911, there have been 3,633 Degrees of various kinds conferred, 237, the number bestowed in 1909, being the highest in any year. Of the total, 3,633, male graduates numbered 3,118, and females 515. The Degrees conferred during 1910, and during the first half-year of 1911, and the total Degrees since the foundation of the University are shown in the following statement:—

Degrees.	Year 1910.		Half-year to 30th June, 1911.		Total up to 30th June, 1911.		
	M.	F.	M.	F.	M.	F.	Total.
M.A.	11	2	7	4	344	48	392
B.A.	48	18	53	21	1,271	379	1,650
LL.D.	...	...	...	...	25	...	25
LL.B.	6	...	10	...	181	1	182
M.D.	...	...	2	...	53	...	53
M.B.	41	1	...	...	500	34	534
Ch.M.	29	5	6	...	332	26	358
L.D.S.	...	...	...	...	28	2	30
B.D.S.	5	...	3	...	41	2	43
D.Sc.	1	...	2	...	7	...	7
B.Sc.	9	7	3	2	93	23	116
M.E.	...	...	...	...	6	...	6
B.E.	19	...	16	...	237	...	237
Total	169	33	102	27	3,118	515	3,633

In connection with the degrees quoted as conferred in 1911, it is to be noted that examinations are held for most subjects in December and March, and the Degrees, &c., earned at these examinations are conferred publicly usually in May following. Degree Examinations in medicine particularly are held in the latter part of each year, and the Degree is conferred privately in the majority of cases.

The diplomas issued are as follows :—

				Half-year, 1911.	Total to 30th June, 1911.
Diploma in Military Science	...	...	...	6	15
„ Public Health	...	...	...	...	2
„ Economics and Commerce	...	...	...	9	35
„ Education	...	...	...	...	...
Total	...	...	...	15	52

In addition to the foregoing, massage and pharmacy students attend certain courses, and certificates are issued for attendances and examinations passed.

The University has not power to confer honorary degrees, but may admit *ad eundem gradum*, graduates of other recognised universities.

Under arrangement made with the British Board of Education, a limited number of graduates of the Sydney University are permitted to share in the benefits of the agreements made between the British Government and the Prussian and French Governments for interchange of assistants in the schools of the respective countries. One graduate was appointed temporary assistant in a French school for the year 1909-10, and another in a Prussian school for 1910-11.

Students proceeding to degrees must qualify for entrance to the University by matriculating.

The subjects of examination for matriculation are—

- (1) English, (2) Mathematics, (3) Latin, Greek, French or German, (4) one or more in accordance with the regulations for admission to the several faculties, viz., (a) one or more languages not already taken, (b) Mechanics, (c) History, (d) one of the following subjects :— Botany, Chemistry, Geology, Physics, Physiology, Zoology.

Of the above-mentioned subjects, certain subjects must be taken at the higher standard as prescribed for admission to the respective faculties or departments of study.

The following statement shows the number of students attending lectures at the University at intervals since 1876 :—

Year.	Matriculated.	Unmatriculated.	Total.
1876	34	24	58
1886	122	81	203
1896	438	16	454
1906	836	218	1,054
1907	871	307	1,178
1908	875	449	1,324
1909	924	350	1,274
1910	1,005	337	1,342

The following table shows the distribution of the students attending lectures during 1910:—

Department.	Matriculated.		Unmatriculated.		Total.
	Males.	Females.	Males.	Females.	
Arts—Day	118	86	26	9	239
„ Evening	117	17	...	...	134
Law	71	...	6	...	77
Medicine... ..	417	11	...	7	435
„ Dentistry	22	2	37	...	61
Science—Pure	27	6	11	4	48
„ Agricultural	4	...	...	...	4
„ Engineering	77	...	6	...	83
„ Veterinary	16	...	...	...	16
Pharmacy* ... ..	...	...	74	2	76
Military History and Science*	...	...	78	...	78
Economics and Commerce*	...	...	75	2	77
Research Study* ... ..	...	...	2	...	2
Post Graduate—Arts ... 14 }	15	12	...	...	27
„ Medicine 1 }					
Total	884	134	315	24	1,357†
	1,018		339		

* Special subjects ; Matriculation not compulsory. † Including 15 students attending in more than one faculty or department.

The figures given above show that, apart from the subsidiary departments for which matriculation is not compulsory, unmatriculated students numbering 106 represented 9·7 per cent. of the total number of students proceeding through the ordinary degree courses. It is to be noted that women students represent 11·6 per cent. of the total students.

A number of scholarships, exhibitions, and bursaries have been founded, chiefly by private benefactors, as rewards for proficiency and for the purpose of placing the advantages of a University education within the reach of capable students, who otherwise would be excluded through want of financial means.

The scholarships and exhibitions are awarded only when the examinations disclose a satisfactory degree of proficiency, and no candidate may hold more than two scholarships.

Candidates for bursaries are required to show that they do not possess sufficient means to attend the University. Bursaries to the number of fourteen are tenable only in the Faculties of Arts or Science (not including Engineering), and are supplemented, on the part of the Senate, with exemption from fees. In the case of the Struth Exhibition and the Henry Wait Bursary, awarded to students proceeding from the first year in the Arts course to the Faculty of Medicine, no exemption from payment of lecture fees is granted. In addition, twelve bursaries are granted annually by the Government to pupils of State schools.

The number of students permitted to attend lectures during 1910 without paying fees was 257, including 48 holders of State and University bursaries, 179 students and ex-students of the Teachers' Training College, and 78 students in Military Science. The payments to University bursars amounted to £838, and to scholars, £2,384.

A Rhodes Scholarship of the value of £300 per annum, tenable for three years at the University of Oxford, is awarded annually to students of Sydney University, and a commission in the British Army is also offered every year.

THE COST OF GRADUATION.

The cost of graduation in each Department is shown in the following statement :—

Faculties and Departments.	Total cost of Graduation.	Term of Study.
	£ s. d.	Years.
Arts (B.A.)	55 8 0	3
Law (LL.B.)	109 13 0	5
Medicine (M.B.)	163 4 0	5
Dentistry (B.D.S.)... ..	154 16 0	4
Pharmacy	15 15 0	1
Military History and Science	13 12 0	3
Economics and Commerce	19 18 0	3
Public Health	30 10 0	1
Science (B.Sc.)	71 3 0	3
Veterinary Science (B.V.S.)	106 10 0	5
Agriculture (B.Sc.Ag.)	83 15 0	4
Civil Engineering (B.E.)	125 8 0	4
Mining and Metallurgical Engineering (B.E.)...	125 8 0	4
Mechanical and Electrical Engineering (B.E.)...	115 19 0	4

Higher degrees, such as M.A., D.Sc., are obtainable after courses of study or research supplementary to the work of the lower degree courses.

The total cost of graduation shown above includes lecture and laboratory fees, matriculation and degree or diploma fees, also, in the medicine and dentistry course, hospital fees.

RECEIPTS AND DISBURSEMENTS.

Below is given a statement showing the amounts derived by the University from each of the principal sources of revenue, and the total expenditure, during each of the last five years. Under the items are included sums received for special expenditure and amounts from benefactors to establish new benefactions.

Year.	Receipts.					Disbursements.	Private Endowments Credit Balance.
	Government Aid.	Fees.	Challis Fund and other Private Foundations.	Other Sources.	Total.		
	£	£	£	£	£	£	£
1906	13,500	19,264	55,230	140	88,134	51,275	518,741
1907	13,750	19,961	42,473	251	76,435	52,756	541,232
1908	21,084	19,672	22,781	665	64,202	58,959	543,752
1909	15,425	20,714	30,630	483	67,252	68,331	546,634
1910	18,800	19,453	25,756	296	64,305	63,764	549,295

The University buildings consist of the main building, containing the great hall, lecture rooms, and offices, all built of Pyrmont sandstone; the Medical School, which is in the same style, and is now being enlarged; the Fisher Library, adjacent to the main building, and designed to form part of the main quadrangle; this is the latest addition to the buildings, and is of modern design, with a bookstack of steel and glass for 200,000 volumes, and with ample reading-room accommodation for students. Separate buildings are distributed over the grounds for the Departments of Chemistry, Physics, Geology, Biology, and Veterinary Science, and the Macleay Museum. The Peter Nicol Russell School of Engineering has also a separate building, recently completed by the State at a cost of £25,000.

EXTENSION LECTURES.

University Extension Lectures were inaugurated in 1886, and have been conducted since that date under the direction of a Board of eighteen members appointed annually, and including at least four members of the Senate and four of the teaching staff. Courses of Lectures are given in various centres upon topics of literary, historical, and scientific interest. At the conclusion of a course, which may consist of a minimum of three lectures, an examination may be held and a certificate awarded to successful candidates. During 1910 the ordinary extension lectures were delivered in seven Sydney and suburban centres, and in thirty-three other centres embracing country districts in New South Wales. In addition, special agricultural lectures were given in thirty-four country centres by the newly-appointed Professor of Agriculture. The Board also confers the benefits of its lectures on other States, and in 1910, lectures under its auspices were delivered in Western Australia, in Victoria, and in Queensland.

PUBLIC EXAMINATIONS.

The University conducts annually Public Examinations, Junior and Senior, which are open to candidates from any school on payment of the necessary fee. These examinations provide an excellent test of the soundness of instruction imparted in the schools of the State, from the pupils of which the examinees are largely drawn.

The following table shows the number of successful candidates at intervals since the year 1876 :—

Year.	Senior Passes.			Junior Passes.		
	Males.	Females.	Total.	Males.	Females.	Total.
1876	...	...	40	...	...	312
1886	...	...	83	...	...	548
1896	59	49	108	633	332	965
1906	92	34	126	582	263	845
1907	104	45	149	531	273	804
1908	101	50	151	582	332	914
1909	90	55	145	604	311	915
1910	114	34	148	721	361	1,082
1911 (half-year)	...	...	...	645	299	944

The attainment of a certain standard at the above examinations is regarded as the equivalent of matriculation, but in addition matriculation examinations are held in March of each year.

Examinations for the admission of articled clerks in Law have been conducted by the University since 1877 under a rule of the Supreme Court, and there were twenty-five passes in 1910. Various other public examinations are conducted by different bodies, for which the schools prepare their pupils, notably the Institute of Bankers for admission to the Bank service, and the Public Service examination for admission to the Service. The extension of the demand for boys with some commercial, as apart from academic or technical knowledge, led the University to issue Commercial Junior certificates and to institute the Department of Economics and Commerce, for the furtherance and co-ordination of commercial education.

AFFILIATED COLLEGES.

In the affiliated colleges within the University 145 students were in residence during 1910. Following are the figures relating to these colleges:—

College.	Students in Residence.	Principals and Lecturers.	Receipts.	Disbursements.
			£	£
St. Paul's	36	5	3,237	3,126
St. John's	20	4	1,470	1,480
St. Andrew's	67	9	8,420	8,350
Women's	22	2	2,013	1,834

These colleges have been endowed from private sources with funds for many scholarships, and each college is subsidised by the Government to the extent of £500 per annum; which subsidy is included in the income quoted above. During 1910 an Act was passed to incorporate Wesley College as a college of and within the University, to afford systematic religious instruction in accordance with the doctrines and laws of the Methodist Church of Australasia, the incorporation being on terms similar to those governing the colleges already established, viz., St. Paul's, by Act 18 Victoria, in connection with the Church of England; St. John's, by Act 21 Victoria, in connection with the Roman Catholic Church; St. Andrew's, by Act 31 Victoria, in connection with the Presbyterian Church of New South Wales. The Women's College, incorporated by Act 53 Victoria, No. 10, is not attached to any religious denomination. The Wesley College Incorporation Act, 1910, repealed an earlier Act of incorporation (23 Victoria), and empowered the University to grant the land necessary for a college in lieu of the earlier grant for a Wesleyan Methodist College, which had been allowed to lapse. For the purpose of establishing the college the Government, under the University and University Colleges Act, 1900, may subsidise the building fund of a college by sums corresponding to the amounts expended for the purpose of building by the college, out of its subscribed funds, up to a maximum of £20,000.

UNIVERSITY OF QUEENSLAND.

Until 1910 Queensland residents sought their University education in Sydney, while candidates from Queensland schools were prominent competitors at the public examinations held by the University of Sydney, and lectures were delivered in Queensland by the Extension Board of the University of Sydney.

The University of Queensland has been so recently established in Brisbane, and the consequent readjustment of the educational system of that State is so likely to react upon the University of Sydney, both in relieving it of portion of the work hitherto carried out and also in creating healthy competition, that a description of the educational system of Queensland may be of more than passing interest. This system is regulated by four enactments, viz. :—

The Grammar Schools Act, 1860, and Amending Act, 1900.

The State Education Act, 1875, and Amending Act of 1897 and 1900.

The Technical Instruction Act, 1908.

The University of Queensland Act, 1909.

For primary education there were in operation, at the end of 1910, 1,101 State Schools, 85 Provisional Schools, 2 schools for Aborigines, and a Reformatory School.

The system of Itinerant Teachers was introduced in 1901, and the Central, Northern, and South-western Districts are now so served. During 1910

these teachers, who work over an area approximating to 366,224 square miles, travelled 34,851 miles visiting 1,292 children, the resultant costs averaging £3 0s. 10d. per child, as against £3 15s. 3d. per pupil enrolled in Provisional Schools. Four additional Itinerant teachers were appointed in 1911 to extend the operation of this system, and to ensure at least four visits per annum to each child.

For secondary education there are ten Grammar Schools—six for boys and four for girls. Each school is governed by a board of seven trustees, of whom four are nominated by the Governor-in-Council, and three by a majority of subscribers to the funds, and each school is subsidised by the Government to the extent of £750 per annum, plus £250 per annum on account of district scholarships, of which five are tenable at each school. All these Grammar Schools are now inspected annually by the Inspector-General of Schools. In addition to the District scholarships, State scholarships and bursaries, and Trustees scholarships, are tenable at the Grammar Schools; and during 1910 scholarship holders at all the Grammar Schools numbered 35, to 65 paying pupils.

In the last quarter of 1910, there were 225 State scholars at the various Grammar Schools, and 26 at approved secondary schools.

Only in 1910 did Technical education come fully under Departmental control, and during the year sixteen Technical Colleges were in operation. Diploma courses were arranged in various subjects, and the ordinary fees were reduced by one-third to all students taking such full diploma courses, for which the College work is supplemented by specified practical work. Technical day schools for general and commercial work were inaugurated. For these, seventy-four scholarships were made available to State school pupils. At the Technical Colleges, as at the University, Government officers are exempt from payment of fees.

The University of Queensland was dedicated on 10th December, 1909, the fiftieth anniversary of the establishment of responsible government within the State. The first Senate consisted of twenty members appointed on the 16th April, 1910, and in the following month three teaching faculties were established, viz., Arts, Science, and Engineering. In addition, two *pro forma* faculties were erected, viz., Law and Medicine. The University is worked in close association with the Central Technical College, so as to avoid unnecessary overlapping of work and duplication of buildings, plant, and machinery. Especially is the work in assaying and metallurgy, for ordinary College students, and for University students, undertaken by the College, and the curriculum is adapted particularly to the Science and Engineering courses of the University, *e.g.*, by means of evening work students may complete at the College the first two years' work of the University course, leaving only the final two years' work to be completed within the University.

The State endowment of the University, which is intended to serve not merely the City of Brisbane, but all Queensland, originally fixed at £10,000 per annum, was raised to £12,500 per annum in consideration of the Senate's establishing a special correspondence study department, and providing liberally for evening students and for exemption from attendance at lectures, when such is necessary. The establishment of the University has resulted in the abolition of exhibitions tenable at other Universities, of which ninety-six had been awarded since 1878, but twenty open scholarships have been made available at the Queensland University, each tenable for three years, and carrying a maximum allowance of £52 per annum. Further, all Government officers are exempt from payment of fees. Entrance to the University is restricted by the matriculation examination, which is, however, arranged on modern lines, and does not make classical subjects compulsory, and the terms of lectures, &c., are so arranged as to allow of one long vacation of twenty weeks.

The Senate directs the holding in December of each year of Senior and Junior public examinations. For 1910 the passes numbered 43 and 118 respectively for these examinations, and in future the numbers diverted from the Sydney University public examinations to the Queensland University public examinations will increase rapidly. The Queensland Senate also co-operates with the Universities of Melbourne and Adelaide in the conduct of practical and theoretical musical examinations.

The University has already received numerous endowments to provide prize funds, and especially to be mentioned is the Christison benefaction, towards the establishment of a Chair of Tropical and Semi-tropical Agriculture. The University also enjoys, like Sydney University, the privilege tendered by the Orient Royal Mail Company of sending two graduates to Europe annually.

AUSTRALIAN UNIVERSITIES.

The establishment of a West Australian University at Perth, as now projected, will complete the circle of Australian Universities, one in each State including Tasmania. Of these Universities, the constitutions of those at Sydney, Melbourne, and Adelaide are somewhat conservative, while the new Universities of Queensland and West Australia are regarded as more fairly representative. The three older Universities having been for so long the potent factors in the provision of the highest culture in Australia, renders their position and experience of importance in relation to the new institutions. As regards Adelaide University, considerable agitation had been caused through the popular demand for increased facilities for higher education and through difficulties of financing. A Select Committee of the House of Assembly reported upon the whole question, which was later referred to a Royal Commission, dated 26th January, 1911, which authorised a full inquiry into the whole question of higher education and the University. This Commission is collecting evidence in regard to all the educational systems of Australia and New Zealand. The nature of the Commission's inquiries were set forth in the following order:—

Main object.—To inquire into the best means of extending the advantages of the University to the greatest number of people.

Special lines of inquiry:—

1. Financial aid given by Government to the University, to Secondary Schools, and to Technical Schools.
2. Methods of extending the advantages of the University to country students and to children of intellectual capacity but in poor circumstances.
3. Method of government of Universities, and the extent to which the Government should be represented on the ruling body of the University.
4. Relationship of the University to technical education.
5. Advisability of accepting a leaving certificate from secondary schools as equivalent to a matriculation certificate.
6. The nature of the high school system.

It will be seen from this statement that practically all the questions being investigated are such as have been frequently and persistently raised in regard to educational affairs in New South Wales, consequently the problems which affect the University of Adelaide must necessarily affect more or less seriously the local University, and the conclusions of the Commission will therefore be of vital importance in matters of education in this State.

Of the thirty-six witnesses examined by the Commission up to the date of presentation of the progress report of 6th September, 1911, ten were attached to educational institutions in New South Wales, the remaining twenty-six

being attached to institutions in Melbourne, Adelaide, and Brisbane. In the progress draft report the resolutions presented applied primarily to the pressing question of finance, the recommendations covering a guarantee for £12,000 instead of £6,000, as requested, for the cost of proposed additions to the University building, without prejudice to the original request aggregating £23,825. The Commission also urged an addition of £4,000 to the annual grant to the University, making £11,000 in all, and the direct representation of the Government upon the Council by five members of the living Parliament; also the appointment of the Director of Education as an *ex officio* member of the Council. The further investigations and final resolutions of the Commission should prove of more than passing interest.

REFORMATORIES AND INDUSTRIAL SCHOOLS.

Apart from the purely educational establishments, the State of New South Wales maintains several reformatories and industrial schools. For girls there is the Industrial School at Parramatta; and for boys, the Carpenterian Reformatory (Brush Farm Home) and, till recently, the nautical school-ship "Sobraon," these institutions being under the control of the Minister of Public Instruction. At the Parramatta Industrial School the enrolment of girls during the year 1910 was 133, of whom 4 were under, and 129 over, 14 years of age, and the cost of maintaining the school in 1910 was £4,462. Pupils enrolled for school work during December quarter of 1910, numbered 88.

At the Carpenterian Reformatory (Brush Farm Home), the boys are taught, under strict discipline, farming, wood-turning, carpentry, boot making, tailoring, painting, and general industrial work. During the year 1910 there were 88 lads in the Reformatory, of whom 5 were under 14 years of age. For December quarter of 1910 there were 27 pupils enrolled for school work. The net annual State expenditure on this institution amounts to £2,901. Since its inception the institution has dealt with 849 boys, and of the discharges it is estimated that fully 83 per cent. have turned out industrious citizens. On account of the abandonment of the "Sobraon" as a nautical school-ship, the number of boys at the Brush Farm has been largely increased during the latter part of 1911; and plans are under consideration for extension of the work of the school, and, to facilitate a wider training in agricultural work, the removal of the farm to a district other than a residential suburb.

On the nautical school-ship "Sobraon" there were 407 boys during the year 1910. Of this number 324 were above the age of 14 years. The admissions during the year numbered 129, and the discharges 173. On the 31st December, 1910, there were 231 boys remaining on the ship. The net cost to the State during 1910 was £10,788, the cost per head of enrolment being £26 10s. 1d. The steam and sailing schooner "Dart" was attached to the "Sobraon," and on board this vessel the boys were taught seamanship, and afforded opportunities of putting their knowledge into practice by an occasional trip to sea. As a result of the experiment a number of boys have been shipped as sailors on deep-sea vessels. The advantage which the "Sobraon" system possessed over the ordinary penal system of the State lay in the fact that the boys who have been subjected to a course of training on board the vessel were not turned adrift on society at the expiration of their term, but apprenticed to persons of well-known character, thus having every opportunity of becoming respectable members of the community. The success which has attended this institution has been an undoubted argument for its existence; but the number of boys drafted to the ship from the Children's Court has steadily decreased in recent years, and it being considered that the ship had outlived its usefulness, it has been discontinued as a training institution. The boys remaining on the ship at the end of June, 1911, were distributed to the Mittagong Farm Homes and the Brush Farm Reformatory.

COST OF EDUCATION.

The actual expenditure by the Government on all branches of Education, including grants and subsidies to Educational and Scientific institutions, cost of industrial schools and reformatories, and expenditure on premises, equipment, and maintenance of public schools, has been steadily increasing, as the figures for the past seven years will show. Relatively to the mean population the increase has been almost imperceptible until 1907, but for the last two years there has been a distinct advance in all items of educational expenditure, particularly in the amount spent on schools and other buildings.

The following is a table of the expenditure for all purposes during the last seven years :—

Year ended 30th June.	Total Expenditure.	Cost per head of mean population.
	£	s. d.
1904	971,148	13 6
1905	946,298	12 11
1906	981,577	13 1
1907	1,045,382	13 7
1908	1,191,617	15 3
1909	1,314,575	16 6
1910	1,308,410	16 2

EXPENDITURE ON STATE SCHOOLS.

The annual expenditure on State Education in a young country is necessarily burdened by disbursements, which are really capital expenditure, in varying amounts for each calendar year according to requirements, and for which the State holds enduring assets. It is, therefore, necessary to distinguish this capital expenditure from ordinary disbursements in estimating the relative annual cost of education. The expenditure of recent years, covering cost of sites, buildings, additions, and repairs, has been as follows:—

Year.	Amount.	Year.	Amount.
	£		£
1905	49,649	1908	189,373
1906	81,405	1909	148,254
1907	92,382	1910	189,704

The manner in which the amounts vary from year to year indicates the fluctuations in the requirements in this direction.

ANNUAL COST—STATE SCHOOLS.

In the following table ordinary annual expenditure only is shown, and is related to the average attendance of children and to the mean population of the State :—

Year.	Rent, also Municipal and Shire Rates.	Maintenance and Salaries.	Administration and Training.	Total.	Gross Annual Expenditure.	
					Per child in average attendance.	Per capita of mean population.
	£	£	£	£	£ s. d.	s. d.
1905	9,171	729,464	51,692	790,327	5 3 11	10 9
1906	8,570	737,041	54,565	800,176	5 5 10	10 8
1907	10,965	758,131	60,817	829,913	5 8 9	10 10
1908	7,342	873,748	64,557	945,647	6 1 3	12 1
1909	17,445	877,916	66,324	961,685	6 0 2	12 1
1910	18,657	911,641	71,711	1,002,009	6 7 3	12 4

The averages over the six years quoted were £5 14s. 8d. and 11s. 6d. per child in average attendance and per capita of mean population respectively.

Since the 8th October, 1906, fees have been received in High Schools only, instruction in other State schools being free. The amount of the fees received during 1910 was £3,575, but from the beginning of 1911 fees in High Schools also have been abolished.

The figures given above represent the annual normal expenditure. To estimate the total cost of State school education during each year of the period would necessitate the investigation of the capital value of buildings and equipment, the rate of depreciation to be allowed, &c. At the present time the Department of Public Instruction estimates the value of school buildings at £1,291,808; residences for school purposes at £361,036, or a total of £1,652,844. The approximate value of school sites is given as £600,000.

For the moneys spent on school buildings and teachers' residences, viz., £1,652,844, it would be only fair that the department should be charged an average rate of interest, as the bulk of the funds have been found out of Loan funds; or even supposing that the whole moneys so expended since the foundation of the department had been derived from the public revenue, it would still be only a reasonable presentation of the true position to charge the Department with interest on the capital sunk in this way. On the basis of 3½ per cent., which represents a normal rate for State funds, an amount of £57,850 would be chargeable under this head, and this amount added to the annual cost of £1,002,009 shown above, would give a cost for 1910 of £1,059,859 chargeable against the department. On these figures the average cost per head of mean population for 1910 was 13s. 1d., or for each child in average attendance, £6 14s. 7d.

The intensity of annual cost is indicated in the following table, in which the relative cost per school is shown for the same years :—

Year.	Schools.	Per School.		
		Municipal and other Rates.	Maintenance and Salaries.	Administration [and Training.
	No.	£ s. d.	£ s. d.	£ s. d.
1895	2,563	0 11 8	215 2 2	17 19 7
1900	2,745	2 6 2	223 19 10	18 12 2
1905	2,901	2 12 8	251 9 0	17 16 5
1906	2,885	2 9 10	255 9 5	18 19 2
1907	2,918	3 6 3	259 16 2	20 16 10
1908	3,002	1 18 1	291 1 0	21 10 0
1909	3,075	5 3 7	285 10 0	21 11 5
1910	3,105	5 10 7	293 12 1	23 1 11

Of the 3,105 schools shown above, 60 per cent. were small schools averaging less than 30 in the daily attendance. Owing to the migration of families for various reasons, it is found necessary at times to close some of these institutions, and in such cases the regulation permitting the granting of subsidies in isolated districts has been utilised. At the end of 1910 there were 362 subsidised schools in operation, with an enrolment of 3,471 children.

SCHOOL SAVINGS BANKS.

The system of school savings-banks was initiated during 1887 in connection with the public schools of the State. At the close of 1910 there were 703 banks in operation, as compared with 696 at the close of 1909. The deposits for the year amounted to £26,062, and the sum withdrawn was £25,048. The total amount to the credit of the school banks on the 31st December, 1910, was £10,923. Since 1887 the total sum of £375,641 has been deposited and £364,718 withdrawn. The object of these school banks is to inculcate practically, the principles of thrift while the minds of the children are susceptible of deep impressions.

AUXILIARY SCHOOL INSTITUTIONS.

In the development of a country which tends more and more to be self-contained industrially, and in order to meet the complex conditions of an advancing civilisation, a powerful factor is being found in subsidiary school institutions and accessory organisations. These exert a considerable educative effect quite apart from the ordinary school routine; they are of recent growth, being for the most part the direct outcome of the revised syllabus of 1905, and include such agencies as libraries, museums, exhibitions and displays, sports clubs, school papers, field naturalists' clubs, &c.

The publications issued in connection with the State schools and colleges include the *Public Instruction Gazette*, primarily for teachers, the *Technical College Gazette*, local school papers, &c. In connection with the Teachers' Training College, various college papers are issued from time to time; those issued during 1910 covered such subjects as retardation, and the teaching of modern languages, and lessons on aboriginal life, &c.

In nearly all superior schools, debating clubs have been established, and are found effective in inducing study of special subjects for debate, and the encouragement of lucid expression of thought.

School sports are organised and encouraged. The Public School Amateur Athletic Association voluntarily undertakes much work in connection with the organisation of sports; and in September of each year a public school sports carnival is held. In the summer, swimming carnivals also take place.

Institutions such as the New South Wales Gould League of Bird Lovers, receiving support from the schools, are valuable factors for inducing public sentiment.

SYDNEY OBSERVATORY.

The Sydney Observatory, established in the year 1856, is an institution of a scientific and educational character, which the State supports. Situated in a commanding position, it is admirably fitted by natural conditions for the purpose it is intended to serve; but the growth of an immense city, radiating in every direction, has caused such adverse atmospheric conditions that another site has become essential.

A daily time-ball service is maintained at Sydney and Newcastle.

During 1910, 168 earth tremors were recorded on the seismograph; and at the Red Hill Observatory Station photographic plates were taken, including 27 observations and plates of Halley's Comet, and ordinary astronomical work was continued.

Meteorological observations are directed by a special Bureau, under the administration of the Commonwealth Government. Three bulletins and one weather chart are published daily by the Bureau. They contain full reports from 226 stations. During the year 1910 there were 14,400 bulletins, 16,956 weather charts, and 12,548 rain maps of New South Wales issued.

The Observatory at Sydney was visited by 775 persons during 1910.

SCIENTIFIC AND OTHER SOCIETIES.

As far back as the year 1821 a scientific society, under the title of the Philosophical Society of Australasia, was founded in Sydney, and after many vicissitudes of fortune was merged, in 1866, into the Royal Society of New South Wales. The society is now in a flourishing condition, counting amongst its members some of the most eminent men in the State. Its objects are the advancement of science in Australia, and the encouragement of original research in all subjects of scientific, artistic, and philosophic interest, which may further the development of the resources of Australia, draw attention to its productions, or illustrate its natural history.

The study of the botany and natural history of Australia has attracted many enthusiastic students, and the Linnæan Society of New South Wales was established for the special purpose of furthering the advancement of these particular sciences. The society possesses a commodious building at Elizabeth Bay, Sydney, attached to which are a library and museum. The society's proceedings are published at regular intervals, and contain many valuable papers, with excellent illustrations of natural history.

Among the principal scientific societies are the Royal Zoological Society of New South Wales, inaugurated in 1879; a branch of the British Medical Association, founded in 1881; and of the British Astronomical Association, whose first meeting was held in 1895; the Royal Anthropological Society of Australasia, the Australasian Association for the Advancement of Science, the Royal Geographical Society, and the University Science Society.

The Australian Historical Society issues records and furnishes information of great value. All the learned professions are represented by associations or societies.

The Royal Art Society holds an annual exhibition of artists' work at Sydney; and of the many musical societies, mention may be made of the Royal Sydney Liedertafel, and the Royal Sydney Philharmonic Society with over 1,000 members.

Last year there were 140 associations existing for the advancement of agriculture, horticulture, and pastoral pursuits, all subsidised by the Government. Of these societies, the Royal Agricultural Society of New South Wales, which holds an annual show at Sydney, has a membership of 2,170 persons. During the year 1910 the Society spent no less a sum than £25,471.

The New South Wales centre of St. John Ambulance Association, during the year 1910, instructed 1,161 men and women in first aid and home nursing; 973 persons obtained the certificates of the Association, and 97 qualified for the medallion.

The Royal Life Society, during the season 1909-10, formed 166 classes of instruction, and certificates and medallions were gained by 620 men and women.

PUBLIC LIBRARIES.

The Public Library of New South Wales was established, under the designation of the Free Public Library, on the 1st October, 1869, when the building and books of the Australian Subscription Library, founded in 1826, were purchased by the Government. The books thus acquired numbered about 16,000, and formed the nucleus of the present library. The number of volumes on the 31st December, 1908, had been increased to 240,743, including those in the lending branch or lent to libraries or private students in the country. During 1909 the number was decreased by the transference to the Sydney Municipal Council of 29,808 books in the lending branch, but at the end of 1910 there were 230,889 volumes. During last year the accessions included 12,416 volumes, of which 3,156 were donated, and 964 books, maps, newspapers, and periodicals were received under the Copyright Act.

The scope of the Public Library, which is essentially a reference institution, has been extended by the introduction of a loan system by which boxes, containing from 60 to 100 books, are forwarded to country libraries, schools of arts, progress associations, &c., to lighthouses, and to Public School Teachers' Associations. These collections are to be returned or exchanged within four months. This system was initiated in August, 1883, and has been gradually extended, the Lighthouse Library being taken over in 1903. In the course of the year 1910, 19,087 volumes were forwarded to 456 institutions. These included 2,032 volumes sent to 18 lighthouses, 4,521 to 67 Public School

Teachers' Associations, and 75 volumes to individual students in the country. Students are expected to pay return freights on parcels, but all the other charges are defrayed by the State.

The reference department of the Public Library contains 219,981 volumes, and there are also 10,908 volumes for country libraries under the lending system. The books and pamphlets belonging to the institution are classified as under :—

Classification.	Reference Department.	For Country Libraries.	Total.
Natural Philosophy, Science, and the Arts	15,633	1,265	16,898
History, Chronology, Antiquities, and Mythology ..	8,357	1,339	9,696
Biography and Correspondence	6,310	1,333	7,643
Geography, Topography, Voyages and Travels, etc....	7,741	1,271	9,012
Periodical and Serial Literature... .. .	34,749	401	35,150
Jurisprudence, Political Economy, Social Science, etc.	7,154	375	7,529
Theology, Moral and Mental Philosophy, and Education	7,040	1,266	8,306
Poetry and the Drama	3,750	209	3,959
General Literature, Philology, and Collected Works..	7,398	3,430	10,828
Works of Reference	4,626	19	4,645
Duplicates	5,575	...	5,575
"Mitchell" Library	67,166	...	67,166
Classified according to the Dewey System—			
General Works	4,695	...	4,695
Philosophy	866	...	866
Religion	1,538	...	1,538
Sociology	10,892	...	10,892
Philology	396	...	396
Natural Science	4,050	...	4,050
Useful Arts	6,808	...	6,808
Fine Arts	2,692	...	2,692
Literature	5,529	...	5,529
History (including Biography and Travel) ..	7,016	...	7,016
Total... .. .	219,981	10,903	230,889

The total cost to the Government of the library buildings has been £28,785; this includes expenditure for extensions in 1886 and 1887, and for the rebuilding of a large portion, completed in 1890. In 1899 the library was incorporated, and allotted a statutory endowment of £2,000 per annum for the purchase of books. The number of visits paid to the Reference Library during 1910 was 174,508.

In 1899 Mr. David Scott Mitchell donated to the trustees of the Public Library a collection of 10,024 well-chosen volumes, together with 50 valuable pictures, and at his death in 1907 bequeathed to the State the whole of his unique collection, consisting principally of books and manuscripts relating to Australasia, and comprising over 60,000 volumes, and 300 framed paintings of local historic interest, valued at £100,000. A separate building designed on modern lines is under erection. The portion completed at a cost of £37,688, and opened on the 8th March, 1910, now holds the Mitchell bequests, which, being so decidedly of Australian interest, form the nucleus of an historical library. During 1910, 6,279 volumes were added to the original collections, making a total of 67,166 volumes in the library. Of the additions the volumes and pamphlets donated numbered 2,825. During the ten months that the library has been open the attendance numbered 11,197.

The cost to the State of the Public Library, including the Mitchell Library, during 1910 was £8,992, of which £2,456 was expended on books, periodicals, and binding.

The administrative work in connection with the Board for International Exchanges is performed by the library staff.

The Sydney Municipal Library, formed by the transfer to the City Council of the lending branch of the Public Library, contains 29,244 volumes, classified as follows :—

Classification.	Number of Volumes.	Average Daily Issue.
Natural Philosophy, Science, and the Arts	6,320	28·9
History, Chronology, Antiquities, and Mythology	3,708	11·6
Biography and Correspondence	4,553	12·0
Geography, Topography, Voyages and Travels, etc.	4,079	10·8
Jurisprudence	1,717	5·7
Moral and Mental Philosophy	1,871	5·9
Poetry and Drama	1,150	5·8
Fiction	3,326	78·6
Miscellaneous—General Literature and Philology	2,520	16·5
Total	29,244	175·8

The attendance at the newspaper-room, attached to the library, was 272,680 persons for the year 1910, or an average daily attendance of 877.

Small local libraries are established in the principal population centres throughout the State. These may be classed broadly under two heads—Schools of Arts, receiving an annual subvention in proportion to the amount of monetary support accorded by the public; and Free Libraries, established in connection with municipalities. Those of the former class preponderate. Under the provisions of the Local Government Act of 1906, any shire or municipality may establish a public library, art gallery, or museum. At the end of 1910 there were, exclusive of the Sydney Municipal Library, 38 municipal libraries in the State, with 40,463 volumes.

The principal public libraries, with the number of volumes in each at the end of 1910, is shown in the following statement :—

Name of Library.	Total number of volumes.
Public Library of New South Wales, including Mitchell Library	230,889
Sydney University (Fisher Library)	92,000
Australian Museum	16,800
Botanical Museum	5,000
Sydney Technical College and Branches	7,255
Sydney Municipal Library	29,244
Other Municipal Libraries... ..	40,463
Schools of Arts, Mechanics' Institutes, &c.	590,799
State Schools	132,000
Total	1,144,450

In addition to the above, there are at the Parliamentary Library over 52,000 books, and large numbers of volumes are at the libraries of the Law Courts and Government Offices. Private circulating libraries, the subscribers to which are charged comparatively small fees, are extensively used.

NATIONAL ART GALLERY OF NEW SOUTH WALES.

The National Art Gallery contains an excellent collection of paintings and statuary, including some of the most famous works of the best modern artists, and some valuable gifts from private persons. The presentations made during 1910 included two oil paintings, some old prints (engravings), and

Mosaic work. The collection of water colours is exceptionally fine, and it is estimated that the present value of the contents of the Gallery is at least £136,000.

The paintings, &c., in the Gallery on 31st December, 1910, were as follows :—

Oil Paintings	...	...	...	...	...	...	366
Water Colour Drawings	...	...	...	...	...	...	374
Black and White Works...	...	...	...	...	...	...	515
Statuary, Casts, and Bronzes	...	...	...	...	...	...	153
Various Art Works in Metals, Ivory, Ceramics, Glass, Mosaic, &c.	...	...	...	...	...	...	353

During 1910 the Gallery was visited by 269,745 persons, the average Sunday attendance being 1,897, and on week-days 548. Art students, under certain regulations, may copy any of the various works, and enjoy the benefit of a collection of books of reference on art subjects. In 1894 a system of loan exchanges between Sydney, Melbourne, and Adelaide was introduced, by which pictures are sent from Sydney to Melbourne and Adelaide and reciprocally, with results most beneficial to the interests of art. Another excellent scheme, continued since 1895, is the distribution of loan collections of pictures to the principal country towns for temporary exhibition. During 1910, 110 pictures were so distributed among 7 country towns, and shown in technical museums and municipal buildings. At the close of 1910 the total expenditure on the National Art Gallery, inclusive of the building, amounted to £258,659, of which £104,462 had been expended on works of art. The disbursements during 1910 were :—

							£
For works of art	...	...	...	...	...	...	1,627
For employees	...	...	...	...	...	...	2,199
For sundries	...	...	...	...	...	...	725
Cost to State	...	...	...	...	...	...	£4,551

The annual endowment for purchase of works of art is £2,000, but for some years this sum also covered portion of the expenditure for maintenance, &c. The Gallery has received but small support from private endowments, and, consequent upon its limited funds, is largely restricted to the collection of specimens of contemporary art. During the last twenty years more than £10,000 have been expended upon the purchase of works of Australian artists.

MUSEUMS.

The Australian Museum, the oldest institution of its kind in Australia, contains a very fine collection of specimens of the principal objects of natural history. There is also an unparalleled collection of zoological and ethnological specimens of distinctly Australian character, for which special accommodation was provided in the new wing opened in 1910. The popularity of the institution is evidenced by the increasing number of visitors, of whom there were 146,022 during 1910, the daily average being 844 on Sundays, and 380 on other days, except Mondays, when students only are admitted. The expenses in connection with the institution amounted to £8,819, exclusive of £1,480 expended on account of the purchase of exhibition cases for the new building. A fine library is attached to the institution, containing many valuable publications, the total volumes numbering 16,800. The specimens acquired during 1910 numbered 11,996, and included a series of rare insects from Northern Queensland, ethnological collections from Central Australia and New Guinea, a remarkable sarcophagus and remains from New Caledonia, some, ancient Peruvian (Inca) pottery, also a collection of fishes from the Philippine Islands. Lectures and gallery demonstrations are given in the museum by members of the staff.

The Technological Museum was instituted at the close of 1879 on the initiative of the trustees of the Australian Museum; but the whole original collection of some 9,000 specimens was totally lost in 1882 by the Garden Palace fire. Efforts were at once made to replace the lost collection, and in December, 1883, the museum was again opened to the public, and now contains a valuable series of specimens illustrative of various stages of many manufactures, and an excellent collection of natural products. The popularity of the institution may be gathered from the fact that 113,233 persons visited it during 1910. There are branch Technological Museums at Goulburn, Bathurst, West Maitland, Newcastle, and Albury, which were visited by 126,697 persons during 1910. The sum of £5,279 was expended on Technological Museums during the year. The exhibits now exceed 100,000, acquired by purchase, gift, loan, and exchange.

The principal additions made to the exhibits during 1910 consisted of timber and ornamental and building stones of Australia. Special provision has been made for displaying specimens of the mohair industry. Research work is carried on by the Curator and his staff, and particularly in respect of the pines (natural order coniferae) of Australia important characteristics were discovered. During 1910 the specimens added to the museum (excluding herbarium specimens) numbered 2,664.

Connected with the Department of Mines is a Mining and Geological Museum, which is open to the public. The exhibits number 40,174, the acquisitions during 1910 numbering 2,614. Amongst other important work, the institution prepares collections of minerals to be used as teaching aids in the public schools. Connected with the Department of Agriculture, is an Agricultural and Forestry Museum, containing 6,500 specimens.

These two museums have cost £14,117 for buildings and equipment.

The "Nicholson" Museum of Antiquities, the "Macleay" Museum of Natural History, the Museum of Normal and Morbid Anatomy, attached to the Sydney University, and the National Herbarium and Botanical Museum at the Botanic Gardens, are accessible to the public free of charge. Housed in the Macleay Museum is the Aldridge collection of Broken Hill minerals, specially purchased for, and donated to, the University by Mr. Hugh Dixon.

SCHOOLS OF ARTS, ETC.

Schools of Arts, and Mechanics' or Working Men's Institutes, are established in nearly all centres of population throughout New South Wales. These institutions at 31st December, 1910, numbered 390, and had a membership of 43,792, an average of 112 members per establishment. The Sydney Mechanics' School of Arts is naturally the principal institute, having a membership of 2,475 and a library of 45,000 volumes. This institution was formed in 1833, essentially as a mechanics' institute, and was intended to provide opportunities for evening study for those employed during the day. In 1873 the Working Men's College was formed, but this section, devoted to the mechanic trades, was taken over by the Government in 1883 and so carried on till 1893, when the Technical College was opened. The educational work of the evening school has been continued at the institute, and classes for adults are held in literary and commercial subjects. During 1910, 295 students were in attendance.

Somewhat similar evening classes for young men are held at the Young Men's Christian Association; also, at the Railway Institute. These institutions have really been carrying on Continuation School work for some years.

At the Railway Institute the class enrolments in city and country classes numbered 851 for the year, the average attendance being 515. Lectures of an educational and scientific character are arranged, in addition to the regular class work, in subjects ranging from ordinary English and commercial subjects

to engine-driving, electrical physics, safe railway working, goods and coaching accounts, &c. The institute, also, has succeeded in accumulating a choice collection of New South Wales timbers. Under the ægis of this institute, ambulance classes, &c., are undertaken and the attendance is exceptionally good. The Ambulance Corps, in 1910, included 4,872 employees of the Railway and Tramway Department.

The majority of Schools of Arts are really libraries and recreation centres. The buildings vested in the trustees of these institutions are valued at £290,086, and the Government subsidy, which is available on the basis of £ for £ of moneys raised locally and expended on buildings (or portions) for educational purposes, amounted to £11,054. This represents 18·8 per cent. of the total income of these institutions; their aggregate expenditure was £59,703.

Grants in aid, included in the amount quoted above, are made at the rate of 10s. per £ on cash contributions from members and on net proceeds of bazaars.

THE ARTS AND PROFESSIONS.

Apart from the initiatory work of instruction in art manual work and in singing, as portion of the syllabus work of the State schools, there is no organised State system of higher training for the arts. In the Technical Education scheme provision is made for teaching art work, modelling, and painting. At the public examinations of the University, drawing and the theory of music form the subjects of the art section, and to accord with the standard of these examinations the requisite instruction is available in the State schools. Practically all the preparation for art careers is undertaken by private schools. But though the State system of education makes no direct provision for higher training in this connection, it offers encouragement indirectly by means of subsidies, such as that to the Royal Art Society of New South Wales, and by the maintenance of libraries, museums, and especially of the National Art Gallery. In connection with this institution, a private bequest enables the trustees to offer annually the Wynne Art Prize, valued at £33 5s., for the best landscape painting of Australian scenery, or the best figure sculpture executed by an Australian artist.

In New South Wales the majority of professional workers are connected with a society or association peculiar to their particular profession, and in most cases such associations direct the educational work for entrance to the profession, mainly by conducting examinations and issuing certificates. Physicians, dentists, and pharmacists are bound by statute to register before they can practice; similarly, barristers and solicitors must be formally admitted to their profession. Similar control is contemplated in regard to hospital nurses, but other professions have not yet been regulated by statute, except in so far as restrictions are placed on employment, such as in mining industries and in connection with local government control, engineering, surveying, &c. In these cases the Government sets standards and issues certificates of fitness.

For the medical and legal professions the University provides the requisite training; it also educates experts in various branches of science. The practice of medicine is restricted to persons registered by the New South Wales Medical Board under the Medical Practitioners Act of 1898 and Amendments of 1900. To become a legally qualified medical practitioner an applicant must prove to the satisfaction of the Board that (a) he is a doctor or bachelor of medicine of some University, or a physician or surgeon licensed or admitted as such by a college of physicians or surgeons in Great Britain or Ireland; (b) he has completed a five-years' medical course of a University or equivalent college, and has received after examination a

diploma, degree, or license entitling him to practice medicine; or (c) he is a member of the Company of Apothecaries of London, or a member or licentiate of Apothecaries' Hall, Dublin.

Medical officers duly appointed in His Majesty's sea or land service are eligible for registration.

During the last ten years the registrations of medical practitioners have been on an average seventy-five per annum, and at 31st December, 1910, there were 1,753 registrations in force. Holders of degrees of M.D., M.B., and Ch.M. conferred by the University of Sydney are entitled to registration and recognition in the United Kingdom in the same way as holders of similar degrees conferred by a British University are recognised in New South Wales.

Dentists, to qualify before the Dental Board of New South Wales, in terms of the Dentists Act, 1900, and the Amending Act of 1909, must show proof of holding a recognised certificate, or of having been engaged for not less than four years in acquiring a professional knowledge of dentistry, and of having passed an examination, or of having obtained a diploma in dentistry from an Australian University. Persons in actual practice, or preparing for the profession at the time of passing of the Act, were of course safeguarded.

At the end of December, 1910, there were 1,295 registrations in force.

Pharmacists are registered under the Pharmacy Board appointed under the Act of 1897. To qualify for registration, evidence must be adduced of three years' apprenticeship in the business of a pharmacist keeping open shop; or of holding a certificate of competency from a recognised College or Board; or of registration under the Sale and Use of Poisons Act; or of having passed a preliminary examination before the Board, or the usual examinations of a recognised college or university. The Board is charged with the publication, in January of each year, of a list of all registered pharmacists, corrected up to 31st December previous. At the end of 1910 the registrations in force numbered 1,022. In addition to qualified pharmacists, other dealers in poisons must be registered before the Pharmacy Board and obtain annual licenses. During 1910, 288 such poison licenses were issued, besides 39 to registered pharmacists. During the past ten years the registrations of pharmacists have averaged 32 per annum.

Members of the nursing profession are registered and certificated by the Australasian Trained Nurses' Association, which was established in New South Wales in 1899, and has branches in the other States. For the year ended 30th June, 1911, the register of nurses in New South Wales showed as follows:—General, 1,152; Obstetric, 609.

Barristers and solicitors may proceed through the courses provided in the Law School at the University, or they may qualify for admission by the Bar examinations. Barristers practising in New South Wales at the end of 1910 numbered 153; solicitors at the same date numbered 999, viz., 404 in the country, and 595 in Sydney.

Men desirous of entering into articles of clerkship with Attorneys, and who have not taken a University Degree, nor passed the preliminary examination required in England, Scotland, and Ireland, are required to pass a preliminary examination conducted by the University. The standard of the law matriculation examination is the University matriculation examination, lower division. Clerks are also required to pass three subsequent examinations in Legal History and Law before application for admission as solicitors. The examinations are conducted by a Board appointed by the Supreme Court.

SHIPPING.

THE rate of increase in shipping of New South Wales has been much faster than that of the population, despite the checks occasioned by unfavourable seasons, and occasional low prices ruling for staple products in the European markets.

The following table shows the number and tonnage of vessels arriving in and departing from New South Wales, at intervals of five years since 1860, together with the average tonnage per vessel at each period:—

Year.	Entered.		Cleared.		Average Tonnage per Vessel.
	Vessels.	Tonnage.	Vessels.	Tonnage.	
1860	1,424	427,835	1,438	431,484	300
1865	1,912	635,888	2,120	690,294	329
1870	1,858	689,820	2,066	771,942	373
1875	2,376	1,109,086	2,294	1,059,101	464
1880	2,108	1,242,458	2,043	1,190,321	586
1885	2,601	2,088,307	2,583	2,044,770	797
1890	2,326	2,340,470	2,317	2,294,911	998
1895	2,390	2,851,546	2,405	2,854,705	1,196
1900	2,784	4,014,755	2,714	3,855,748	1,432
1905	2,725	4,697,511	2,694	4,684,108	1,731
1906	2,893	5,283,719	2,883	5,275,031	1,828
1907	3,238	6,070,953	3,205	6,009,282	1,875
1908	3,196	6,298,784	3,219	6,303,125	1,964
1909	2,861	5,870,034	2,767	5,689,426	2,054
1910	2,937	6,290,119	3,035	6,471,855	2,137

In the shipping records the total voyages of vessels are included, but no account is taken of ships of war, cable-laying vessels, and yachts, nor of vessels trading between ports in New South Wales. The tonnage quoted is net.

In 1860 the number of vessels required to conduct the trade of New South Wales was 1,424, while in 1910 the total had increased to 2,937. A more definite idea of the growth of trade is obtained, however, when it is stated that in 1860 the tonnage of the vessels that entered the ports of the State was 427,835, while in 1910 the tonnage was 6,290,119, or nearly fifteen times as large. The shipping returns of the last two years were adversely affected by the coal miners' strike of 1909-10.

Since 1860 the size of vessels has been constantly increasing. In that year the average capacity of each vessel was 300 tons; in 1910 the figure was 2,137 tons. Vessels over 12,000 tons now enter the port of Sydney frequently, and steamers of much greater tonnage are in course of construction to fulfil the requirements of the rapidly expanding trade.

The tonnage fluctuated from year to year, but with a constant tendency to increase, until in 1910 it reached the highest figure on record. The striking feature of the above table is the enormous expansion which has marked the years subsequent to the federation of the Australian States. In the interval —1900–10—the tonnage of the inward shipping increased 57 per cent., and of the outward 68 per cent. Compared with other Australian States the shipping tonnage of New South Wales is the greatest, as it comprises over one-third of the total. Victoria comes next with one-fourth. The position of all the States may be seen in the following statement:—

State.	Entered.		Cleared.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
New South Wales ...	2,937	6,290,119	3,035	6,471,855
Victoria ...	2,308	4,952,273	2,312	4,954,773
Queensland ...	926	1,842,497	946	1,861,720
South Australia...	1,311	3,547,362	1,299	3,543,386
Western Australia ...	733	2,372,303	726	2,372,260
Tasmania...	979	1,210,540	977	1,216,064

NATIONALITY OF VESSELS.

The trade of the State of New South Wales is, to a very great extent, under the British flag, the deep-sea trade with the mother country and British possessions being in the hands of the shipowners of the United Kingdom, and the interstate trade chiefly with local shipowners. Since 1881 there has been a notable increase in foreign shipping, and at the present day the greater portion of the direct trade transacted with foreign ports is carried in vessels which are not British. This has been due to the appearance in the Australian trade of the steamers of the Messageries Maritimes in 1883, of those of the two German lines some time later, and more recently the vessels of the American, Japanese, and Dutch companies. From the table given below, showing the expansion in British and foreign shipping during the last fifty years, it will be seen that the British tonnage entered and cleared in 1860 was 689,251, or 80·2 per cent. of the total of 859,319 tons; while in 1880 the proportion was as high as 92·9, British vessels representing 2,259,924 tons out of a total of 2,432,779. In 1910, however, the British shipping had fallen to 84 per cent., the foreign tonnage having increased from 172,855 to 2,038,934 during the thirty years which have elapsed since 1880:—

Year.	British.		Foreign.		Total.
	tons.	per cent.	tons.	per cent.	tons.
1860	689,251	80·21	170,068	19·79	859,319
1865	1,248,249	94·12	77,933	5·88	1,326,182
1870	1,333,410	91·22	128,352	8·78	1,461,762
1875	2,001,641	92·32	166,546	7·68	2,168,187
1880	2,259,924	92·89	172,855	7·11	2,432,779
1885	3,615,582	87·48	517,495	12·52	4,133,077
1890	4,030,472	86·95	604,909	13·05	4,635,381
1895	5,061,387	88·70	644,864	11·30	5,706,251
1900	6,702,106	85·15	1,168,397	14·85	7,870,503
1905	8,033,943	85·63	1,347,676	14·37	9,381,619
1906	8,820,080	83·53	1,738,670	16·47	10,558,750
1907	10,001,019	82·79	2,079,216	17·21	12,080,235
1908	10,583,435	83·98	2,018,474	16·02	12,601,909
1909	9,555,558	82·66	2,003,902	17·34	11,559,460
1910	10,723,040	84·02	2,038,934	15·98	12,761,974

Of the tonnage set down as British, the larger portion is owned or registered in Australia and New Zealand. Prior to 1891 the returns did not discriminate between Australasian shipping and that belonging to other British possessions, and it is only after 1900 that Australian vessels can be separated from those of New Zealand; but in 1870, out of 1,333,410 tons of shipping entered and cleared under the British flag, 964,718 tons, or 72·3 per cent., belonged to British possessions, the great bulk being Australasian; in 1880, out of 2,259,924 tons of British shipping entered and cleared, 1,499,236 tons, or 66·3 per cent., belonged to British colonies. In 1900 the shipping of British nationality entered and cleared this State amounted to 6,702,106 tons (of which 3,590,284 tons, or 53·6 per cent., were Australasian) out of a total of 7,870,503 tons. In 1901 the total tonnage of vessels trading with this State was 8,407,301 tons, and of these the vessels owned in the Australian Commonwealth represented 3,348,502 tons, or 39·8 per cent. of the total; while in 1910 out of a total of 12,761,974 tons, 4,463,079, or 35 per cent., were Australian.

The tonnage of the foreign vessels trading with New South Wales exhibits a great advance during the last twenty years, from 13 per cent. of the total up to 16 per cent. Taking the year 1910, for which the total tonnage of the principal nationalities is given below, Germany stands first with 7·4 per cent. of the total, then Norway with 2·4 per cent., and France with 2·2 per cent. The only other nations whose carrying trade with the State is important are Japan 1·3 per cent., Netherlands and Italy, with approximately 1 per cent. each.

The statement below shows the total shipping of the principal nationalities that entered and cleared the ports of New South Wales in 1890, 1900, and 1910, as well as the proportions per cent. In 1890 and 1900 New Zealand vessels are included with the Australian, and cannot be separated:—

Nationality.	Total Shipping Entered and Cleared New South Wales.						Percentage of each Nationality.		
	1890.		1900.		1910.		1890.	1900.	1910.
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.			
British—									
Australian ..	3,223	2,453,300	3,305	3,500,284	2,934	4,463,079	52·93	45·62	34·97
New Zealand ..					581	1,004,543			7·87
Other British ..	965	1,577,172	1,469	3,111,822	1,543	5,255,418	34·02	39·54	41·18
Total ..	4,188	4,030,472	4,774	6,612,106	5,059	10,723,040	86·95	85·16	84·02
Foreign—									
French ..	76	137,466	159	249,302	144	282,551	2·97	3·17	2·21
German ..	152	229,413	144	351,064	335	950,100	4·95	4·46	7·44
Norwegian ..	23	17,404	81	81,024	189	308,603	·37	1·04	2·42
Netherlands ..	11	12,121	23	43,537	48	91,850	·26	·55	·72
Italian ..	4	4,780	54	71,803	18	70,179	·10	·91	·55
Japanese ..	..	..	48	120,208	54	160,413	..	1·53	1·26
United States ..	161	173,770	165	193,849	47	46,631	3·75	2·46	·37
Other Nationalities	28	29,952	50	56,610	59	128,707	·65	·72	1·01
Total ..	455	604,909	724	1,168,397	914	2,038,934	13·05	14·84	15·98
Grand Total ..	4,643	4,635,381	5,498	7,870,503	5,972	12,761,974	100·00	100·00	100·00

SHIPPING TRADE WITH VARIOUS COUNTRIES.

Of the tonnage engaged during 1910 in the outward trade of New South Wales, 17·1 per cent. went to the United Kingdom. The tonnage of vessels to other Australian States amounted to 46·7 per cent. of the whole, and to the Dominion of New Zealand 9·3 per cent. As regards the remainder, 6·1 per cent. went to other British possessions, and 20·8 per cent. to foreign countries. The following table shows the tonnage entered from and cleared for the countries within the British Empire, and the principal foreign countries, but it must be borne in mind that the figures represent the nominal tonnage or cargo space of the vessels carrying the goods, and not the actual weight of the goods carried, which latter information it is impossible to obtain.

A distribution of the traffic will be found below:—

Country.	Entered from and cleared for various Countries.					
	1890.		1900.		1910.	
	Vessels.	Tonnage.	Vessels.	Tonnage.	Vessels.	Tonnage.
British Empire—						
Australian States	2,974	2,544,905	3,082	3,861,154	3,413	6,275,901
United Kingdom	318	651,133	341	954,232	484	2,029,216
New Zealand	460	332,793	540	598,710	573	1,125,492
India and Ceylon	33	61,820	57	138,993	59	178,571
Hong Kong	64	92,523	68	121,933	26	40,392
Canada	4	5,103	41	76,477	42	145,481
Cape Colony	12	18,744	152	240,755	16	30,127
Natal ... ..	...	...	40	60,701	19	46,434
Fiji	66	68,003	65	64,125	66	101,764
Straits Settlements	24	33,994	19	31,212	62	151,091
Other British Possessions	13	9,079	60	58,101	88	116,914
Total, British	3,968	3,818,097	4,465	6,206,393	4,848	10,241,373
Foreign Countries—						
France	25	57,096	44	100,793	51	148,137
Germany	69	133,368	70	234,817	155	510,510
Belgium	10	14,426	13	28,129	12	34,126
United States	154	222,483	157	303,187	183	403,343
China	8	10,365	19	41,161	...	...
Japan	4	5,150	34	83,179	93	239,713
New Caledonia	100	97,823	118	143,867	59	107,341
Java	20	26,837	45	89,129	46	104,488
Philippine Islands	14	19,323	31	44,825	47	125,945
Hawaiian Islands ... ..	...	...	94	107,248	27	62,841
Peru	15	17,676	28	37,411	44	58,389
Chile	100	115,222	211	295,829	207	443,202
Other Foreign Countries	156	97,515	169	154,535	200	282,566
Total, Foreign	675	817,284	1,033	1,664,110	1,124	2,520,601
All Tonnage	4,643	4,635,381	5,498	7,870,503	5,972	12,761,974

It will be seen from the above figures that out of a total tonnage amounting to 12,761,974 in 1910, vessels from other Australian States provided 6,275,901, or 49·2 per cent. of the whole. The United Kingdom furnished the next largest tonnage with 2,029,216 tons, or 15·9 per cent., followed by New Zealand with 1,125,492 tons, equal to 8·8 per cent.; Germany with 510,510 tons, or 4 per cent.; Chile with 443,202 tons, or 3·5 per cent. of the total; and United States with 403,343 tons, or 3·2 per cent.

During the twenty years—1890–1910—the tonnage of the United Kingdom increased by 1,378,083 tons, or 212 per cent., while the tonnage of ships trading with British dominions increased by 6,423,276, or 168 per cent.; and with Germany by 377,142 tons, or 283 per cent. There has been a large decrease in the tonnage of the United States since 1907, due to the discontinuance of a line of mail steamers which traded direct between San Francisco and Sydney. It has been decided, however, to resume this service in May, 1912, in addition to a new service which commenced in December, 1911. The opening of the Panama Canal in 1913 will provide a direct sea-route to the east coast of America.

The growth of trade with the East since 1900 is apparent from the large increase in the tonnage of vessels plying between this State and Japan, Java, and the Philippine Islands. A line of Dutch steamers to Java was established in 1907.

The tonnage for Chile shows a marvellous increase, although the shipping during the last two years was considerably less than in 1908. The vessels from Chile and other South American countries arrive almost wholly in ballast to load coal, which is the chief article of export from New South Wales to South America. The trade with these countries was, therefore, seriously affected by the coal-miners' strike.

The great increase in German tonnage is due principally to the fact that Germans are amongst our largest wool buyers. Wool purchased by them at the Sydney wool sales is now sent by German steamers direct to Germany, instead of being transhipped at London.

SUBSIDISED STEAMSHIP COMPANIES.

In connection with the subject of increased shipping tonnage, attention might be drawn to the fact that some of the steamship companies trading to New South Wales are subsidised by various governments for carrying mails between Australia and their respective countries. The Norddeutscher Lloyd, for example, receives an annual subsidy for the mail service between Australia and Germany. The French and Japanese Governments also subsidise steamers trading to Australia.

Of the British lines the Peninsular and Oriental Steam Navigation Company is in receipt of one subsidy from the Imperial Government for the conveyance of mails to East India, China, and Australia. The Commonwealth Government has made a contract with the Orient Steam Navigation Company, Limited, for ten years from the 1st February, 1910, by which the Commonwealth has agreed to pay a subsidy of £170,000 per annum for a fortnightly service between Australia and the United Kingdom, provided that each mailship is, at least 11,000 tons gross registered tonnage, and capable of steaming at least 17 knots. Space for certain cargo is to be provided, and the steamers fitted with wireless telegraphy installation. The flag of the Commonwealth of Australia is to be flown, and only white labour employed on these vessels.

The Canadian-Australian Steamship Company is subsidised for carrying the mails to and from Australia; and Burns, Philp, & Co., for the maintenance of the service between Eastern ports and between Sydney and the New Hebrides, Papua, and other Pacific Islands.

STEAM AND SAILING VESSELS.

The records prior to the year 1876 do not distinguish the steamers from the sailing vessels, but the tendency to supersede sailing vessels by steam has been abundantly apparent in the years which have since elapsed. In 1876 the steam tonnage was 912,554, as compared with 1,215,171 tons of

sailing vessels, being 42·9 per cent. and 57·1 per cent. respectively. The relative positions have long since been transposed, for the tonnage of sailing ships in 1910 was lower than the figures of 1876, being 822,093 tons, or 6·4 per cent. of the total shipping, as compared with 11,939,881 tons of steam, or 93·6 per cent. of the whole. The steam tonnage in 1910 was, therefore, thirteen times as great as in 1876. The progress of the tonnage of each class will be seen from the following table:—

Year.	Steam.		Sailing.		Proportion of Steam to Total Tonnage.	
	Entered.	Cleared.	Entered.	Cleared.	Entered.	Cleared.
	tons.	tons.	tons.	tons.	per cent.	per cent.
1876	473,821	438,733	600,604	614,567	44·10	41·65
1880	803,935	746,437	438,523	443,884	64·71	62·71
1885	1,413,551	1,378,292	674,756	666,478	67·69	67·41
1890	1,759,475	1,768,848	580,995	526,063	75·18	77·08
1895	2,132,753	2,161,176	718,793	693,529	74·79	75·71
1900	3,206,657	3,140,449	808,098	715,299	79·87	81·45
1905	4,051,884	4,042,703	645,627	641,405	86·26	86·31
1906	4,659,821	4,658,235	623,893	616,796	88·19	88·31
1907	5,257,019	5,228,469	313,934	780,813	86·59	87·01
1908	5,822,060	5,737,747	476,724	565,378	92·43	91·03
1909	5,388,231	5,254,376	481,803	435,050	91·79	92·35
1910	5,892,049	6,047,832	398,070	424,023	93·67	93·45

The advantage offered by the New South Wales trade to shipowners is illustrated by the rather peculiar feature of the large amount of tonnage coming to the State in ballast, and the small amount leaving without cargo. Many vessels arriving in ballast come from the ports of the neighbouring States, where they have delivered a general cargo, and, having been unable to obtain return freight, have cleared for Newcastle to load coal. The largest amount of tonnage entered in ballast in any one year since 1876 was in 1907, when it reached 1,980,322 tons. In 1910 the tonnage entered in ballast amounted to 1,266,429 tons. The tonnage entered and cleared in ballast for the years shown was:—

Year.	Steam (Ballast).		Sailing (Ballast).		Proportion of Tonnage in Ballast to Total Tonnage.	
	Entered.	Cleared.	Entered.	Cleared.	Entered.	Cleared.
	tons.	tons.	tons.	tons.	per cent.	per cent.
1876	16,709	4,022	246,244	13,834	24·47	1·70
1880	73,006	3,015	144,757	13,204	17·53	1·36
1885	146,501	11,181	198,865	42,200	16·54	2·61
1890	309,780	3,767	228,699	18,620	23·01	·98
1895	375,589	26,802	466,401	6,630	29·53	1·17
1900	791,803	133,159	505,030	1,644	32·30	3·50
1905	882,539	127,268	466,774	16,956	28·72	3·08
1906	1,191,875	186,016	415,718	8,801	30·43	3·70
1907	1,341,336	192,027	638,986	24,939	32·62	3·61
1908	1,320,012	211,835	339,772	16,973	26·35	3·63
1909	868,065	209,817	344,595	18,134	20·66	4·01
1910	997,188	201,614	269,241	8,635	20·13	3·25

Although the proportion of tonnage entered in ballast fluctuated between 16·5 per cent. in 1885 and 32·6 per cent. in 1907, the tendency is for the figure to stand at about one-quarter of the whole. The tonnage cleared in ballast is very small; up to 1900 it was about 2 per cent., and is now $3\frac{1}{4}$ per cent. The reason why so small a proportion of shipping clears New South Wales

in ballast is principally to be found in the great and varied resources of the country; for when the staple produce—wool—is not available, cargoes of wheat, coal, silver, copper, live-stock, frozen meat, butter, fruit, tallow, leather, skins and hides, and other commodities may be obtained.

PORTS.

No other seaport of the State can be compared with either Sydney or Newcastle, though Port Kembla now maintains a trade of some consequence; and of late years the importance of Eden (Twofold Bay) has increased.

The port of Sydney (Port Jackson) possesses great natural facilities for shipping. The entrance is slightly over a mile in breadth, the area of water surface is 15 square miles, and the length of foreshores about 200 miles. The Macquarie Light, on the outer South Head, and the Hornby Light on the inner South Head, light the entrance. The former is a revolving electric light erected on a cliff about 300 feet above the sea level, visible at a distance of 26 miles; the Hornby Light (fixed) is visible at 15 miles. Numerous leading lights and buoys have also been established to facilitate the navigation of the port. The maximum high-water depth of the eastern channel, used by deep-sea vessels, is 40 feet, and the minimum 35 feet. In anticipation of even larger vessels visiting Sydney than those now trading to the port the channels are being dredged so that the deepest draught vessels will be able to navigate the harbour with the utmost safety.

The Pilot Station is situated at Watson's Bay, on the western side of South Head, and the Quarantine Station at inner North Head. There are eight islands in Port Jackson—Clark and Shark Islands, public pleasure resorts, Garden Island, used for naval purposes, Goat Island, the residence of the Harbour Master and depôt of the Sydney Harbour Trust, Spectacle Island, used for the storage of explosives, Cockatoo Island, at the mouth of the Parramatta River, where the Fitzroy and Sutherland dry docks are situated, and Rodd and Schnapper Islands, which have been resumed for recreation purposes. Fort Denison, near the entrance to Circular Quay, erected in the early days as a fortification, is now used as a lighthouse.

The wharves are situated along the southern shore from Woolloomooloo Bay to White Bay, and the control of the foreshores is vested in the Sydney Harbour Trust. It is the policy of the Trust to provide berths for overseas vessels between Woolloomooloo Bay and the gasworks on the east side of Darling Harbour, reserving the east and west sides of the Circular Quay for the various mail and passenger liners; as far as possible the Interstate and New Zealand vessels are accommodated in Darling Harbour in close proximity to Sussex-street, the centre of an important produce trade.

In Woolloomooloo Bay there are eleven berths, the aggregate length of which is 4,100 feet. In Farm Cove mooring buoys are provided for the vessels of the Imperial Navy, near the naval depôt on Garden Island, at the west side of the Cove are jetties for excursion traffic and harbour launches. At Circular Quay, the head of Sydney Cove, the length of berths is 5,362 feet; on the southern side piers and pavilions have been constructed for the ferry steamers, and on the eastern and western sides the wharfage accommodates the large oversea mail vessels.

West of Dawes' Point, and along the eastern shore of Darling Harbour, the frontage is almost entirely occupied by wharves and jetties, the total length being over 37,000 feet. In Darling Harbour, where cargoes are landed in the heart of the city, the accommodation is amongst the finest in the world; the wharves are connected with the main railways of the State; refrigerating machinery, electric lighting, and cold-storage space are provided, and large sheds for grain, wool, and other produce have been erected. The

total length of berths in Sydney Harbour is 50,117 feet, and more wharfrage accommodation is being built.

There are also extensive graving docks and patent slips in Sydney, both public and private; details of these are shown on a subsequent page.

The ferry services of Sydney Harbour are well conducted by private companies, and it is worthy of remark that during the year 1910 no less than 24,000,000 passengers were carried practically without accident.

Newcastle Harbour (Port Hunter), at the mouth of the Hunter River, has an entrance 1,200 feet wide. A northern breakwater and a curve guide-wall on the southern side have been constructed; the breakwater is being extended with a view of reducing the quantity of sand which tends to form a spit at the entrance, necessitating continuous dredging. The depth of the channel at high tide is 30 feet. Newcastle is primarily a coal-shipping port, and wharves have been constructed with modern shipping appliances for large oversea vessels.

Sydney is the chief trading centre in the State, being the only port with extensive shipping facilities, and the terminus of all the important railways. It has been determined, however, that decentralisation in railway transit is essential to deal with the growing traffic, and a Royal Commission of Inquiry was appointed in June, 1910, to report as to the best means of giving effect to this determination.

The requirements of a harbour for the purposes of decentralisation are that the entrance should be navigable by the largest oversea vessels, that there should be sufficient area of protected water for loading and unloading vessels, and ample land adjacent to the harbour for the erection of the necessary buildings, railway lines, and sidings. The harbour should also be so situated as to admit of rail connections with the interior.

As the result of their inquiry the Commissioners recommended the establishment of ports for oversea shipment at Port Stephens to the north, and Jervis Bay to the south, of Sydney; these points to be connected by the construction of cross-lines with the existing railways.

Port Stephens is a natural harbour, 83 miles north of Sydney. Up to the present no attempt has been made to improve the natural conditions of the port, but the Commissioners have recommended the establishment of a port at Salamander Bay, 5 miles from the entrance, where there is sufficient well-sheltered deep water for harbour purposes, and where shipping facilities could be provided at a very low cost. Port Stephens not only offers an economical and easily-equipped port, but its position admits of connections with the trunk railways; the total cost is estimated at £3,194,000, of which £330,000 is for shipping facilities at Salamander Bay, with the dredging and lighting of the port, and the balance for railway connections with the north and west for decentralisation purposes.

Jervis Bay is 82 miles south of Sydney. It was selected by the Decentralisation Commissioners for an oversea port as those further south possess few natural advantages, and present difficulties in the way of railway connection with the interior. An area of land on the south side of the bay has been ceded to the Commonwealth Government for use as a Federal port, and alternative schemes have been submitted for the construction of a harbour at Montague Road on the north side.

There are also a number of shipping places along the coast of New South Wales which offer shelter for vessels of small draught, but their utilisation for oversea purposes would involve large expenditure. These are mostly anchorages with ocean jetties, and bar harbours at the mouths of the rivers. In many places the construction of breakwaters has been undertaken to

afford additional shelter or to improve the entrances by preventing the ingress of sand from the ocean beaches.

Wollongong and Port Kembla are used mainly for the shipment of coal from the southern coal-fields, and the trade connected with the smelting and other industries established in the vicinity. Wollongong is an artificial harbour, excavated out of rock, with a retaining wall to form a shipping basin. At Port Kembla works are in progress for the purpose of forming an enclosed harbour, which, when complete, will have an area of about 334 acres.

The trade of the Northern Rivers is considerably hampered by the unsatisfactory harbour entrances, the navigation of the bars being difficult and uncertain; a scheme is now under consideration to establish a deep-sea port at Coff's Harbour, 250 miles north of Sydney, and thereby provide reliable transport for the rich products of these districts.

The progress of the shipping trade of Sydney has been very uniform, the increase from the year 1860 being at an average rate of about 5.6 per cent. per annum, and from 1890 at the rate of 5.7 per cent. per annum. The vessels registered as entered at Sydney considerably exceed in tonnage those cleared. To account for this it is only necessary to state that vessels leaving Sydney for Newcastle for the purpose of shipping coal are reckoned as departures from Newcastle, and not from Sydney. For this reason the clearances of Newcastle uniformly exceed the arrivals, as will be noticed in the following statement, which shows the shipping entered from and cleared to countries outside New South Wales at both Sydney and Newcastle for quinquennial periods from 1860 to 1905, and for each of the last six years:—

Year.	Sydney.		Newcastle.	
	Entered.	Cleared.	Entered.	Cleared.
	tons.	tons.	tons.	tons.
1860	292,213	275,630	111,274	134,480
1865	423,570	421,049	189,620	248,769
1870	385,616	364,758	283,091	383,242
1875	590,700	468,423	510,902	573,626
1880	827,738	641,996	400,598	516,480
1885	1,608,169	1,283,888	452,946	722,865
1890	1,644,589	1,356,632	625,398	842,180
1895	2,027,951	1,669,654	727,834	1,048,400
1900	2,716,651	2,109,739	1,160,758	1,523,976
1905	3,401,013	2,922,461	1,182,267	1,586,134
1906	3,751,458	3,277,907	1,404,844	1,762,472
1907	4,273,995	3,717,792	1,657,234	2,044,706
1908	4,409,021	3,642,793	1,746,070	2,408,946
1909	4,507,187	3,795,231	1,182,031	1,676,759
1910	4,791,029	4,299,857	1,303,133	1,915,312

The total tonnage of Sydney increased by 902,000 tons between 1860 and 1880, and by 3,357,000 tons between 1880 and 1900, while during the last five years the increase has amounted to 2,767,412 tons.

The returns for Newcastle also show a great advance, the tonnage entered having considerably more than doubled between 1895 and 1908. The industrial strife in the coal-mines caused the marked decrease during the last two years. As might, perhaps, be anticipated from the nature of the trade of the two ports, a large number of sailing vessels visit Newcastle, the proportion of tonnage being 17 per cent. In Sydney the proportion is 3 per cent.

The other ports of the State are of minor consequence compared with Sydney and Newcastle, the total tonnage of all of them amounting only to 195,957 entered and 256,686 cleared, or about 3.5 per cent. of the whole.

In 1910 the tonnage of vessels which entered Port Kembla direct from places outside the State totalled 87,831 tons; while at Eden the shipping entered amounted to 78,340 tons. The shipping cleared at Port Kembla had an aggregate tonnage of 146,656, and at Eden (Twofold Bay) 64,619. The bulk of the trade of Twofold Bay is with Tasmania.

During recent years a fairly large trade has sprung up between Brisbane and the northern rivers—Clarence, Richmond, and Tweed. In 1910 the total tonnage of vessels entered at these rivers from places beyond the State was 15,193, and of vessels cleared 15,452. The remaining ports at which shipping was recorded, and the tonnage of vessels entered and cleared thereat, were—Nambucca 862, Port Macquarie 200, Bellambi 40,247, and Port Stephens 3,243 tons.

That Sydney is one of the chief ports of the world is evident from a comparison with the returns of other ports, as shown by the following table. The figures quoted relate to the latest years available, all being subsequent to 1908:—

Port.	Tonnage Entered.	Port.	Tonnage Entered.
<i>Sydney</i>	4,791,029	Singapore	7,045,193
Melbourne	4,826,779	Hong Kong	11,150,560
Brisbane	1,508,064	Capetown	1,659,621
Port Adelaide	2,831,377	Durban	2,303,571
Fremantle	1,363,333	Montreal	1,456,465
Hobart	763,788	Halifax	1,221,186
Auckland	645,063	Victoria (B.C.)	1,235,584
London	11,605,698	Hamburg	10,944,909
Liverpool	7,747,994	Marseilles	7,187,638
Cardiff	5,771,476	Havre	3,248,335
Tyne Ports	6,992,758	Antwerp	11,005,761
Hull	3,517,953	Rotterdam	8,600,496
Southampton	4,279,052	Copenhagen	3,090,636
Glasgow	1,917,144	New York	12,154,780
Leith	1,344,893	Boston	2,964,912
Calcutta	1,549,069	Buenos Aires	4,760,316
Bombay	1,945,480	Shanghai	4,348,285
Colombo	6,593,591	Monte Video	6,936,983
Gibraltar	4,896,174	Rio de Janeiro	4,167,361
Malta	3,755,095		

It will be seen from the above list that Sydney stands sixteenth in importance. The figures for Singapore, Hong Kong, and Shanghai are large on account of their extensive distributing trade, and because they are situated on the route to many trading centres.

SHIPPING REGISTERED.

At the end of the year 1910 there were 1,015 steamers and sailing vessels, representing 118,964 tons net, registered as belonging to the port of Sydney. Of these, 616 were steamers, collectively of 77,257 tons net. There were 55 steamers, of 2,959 net tons, and 48 sailing vessels of 7,840 tons, on the register at Newcastle. The total tonnage registered in the State was 129,763 of which 80,216 was steam tonnage. These figures are exclusive of lighters, of which there are 254, of a total tonnage of 11,043 registered at Sydney; and 20, of an aggregate tonnage of 1,463, at Newcastle.

The only ports at which vessels are registered are Sydney and Newcastle, and the following statement shows the registrations at these ports on the 31st December, 1910, classified according to tonnage:—

Tonnage.	Sydney.				Newcastle.			
	Steam.		Sailing.		Steam.		Sailing	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Under 50 ...	361	6,847	249	3,710	41	945	21	566
50 and under 100 ...	102	7,299	79	6,023	10	661	13	926
100 „ 200 ...	69	9,759	22	3,170	2	217	2	244
200 „ 300 ...	20	4,924	13	3,258	...	...	2	510
300 „ 400 ...	19	6,475	14	4,802	...	...	4	1,393
400 „ 500 ...	9	3,986	3	1,361	...	...	3	1,312
500 „ 600 ...	13	7,219	2	1,108	2	1,136	...	...
600 „ 1,000 ...	8	6,191	9	7,578	...	...	2	1,436
1,000 „ 1,400 ...	6	6,960	6	7,101	...	...	...	...
1,400 „ 1,800 ...	5	8,010	...	...	...	...	1	1,453
1,800 and over ...	4	9,587	1	2,130	...	...	...	...
Total ...	616	77,257	399	41,707	55	2,959	48	7,840

The total new tonnage registered in New South Wales during each of the last ten years was:—

Year.	Steamers.		Sailing Vessels.		Total.	
	No.	Tons.	No.	Tons.	Vessels.	Tons.
1901	20	7,063	28	5,166	48	12,229
1902	38	6,020	25	1,995	63	8,015
1903	42	6,424	28	1,742	70	8,166
1904	23	6,082	20	716	43	6,798
1905	37	3,018	11	1,103	48	4,121
1906	40	11,249	14	3,243	54	14,492
1907	35	7,664	15	3,294	50	10,958
1908	42	4,660	14	4,798	56	9,458
1909	43	6,646	5	1,783	48	8,429
1910	35	9,951	4	1,377	39	11,328

During the year 1910 two vessels, of a total of 1,530 tons, were sold to foreign buyers, and in consequence were removed from the Register of the State. Sales were made to British subjects of 85 vessels, with a total tonnage of 10,796, which remained on the Registers.

CONSTRUCTION OF VESSELS.

The years 1883 and 1884 were marked by great activity in the construction both of sailing and steam vessels, 50 sailing and 52 steam vessels having been built in 1883, and 39 sailing vessels and 64 steamers were built in the

subsequent year. Trade then became less active, and the industry showed a tendency to die out. In 1890 it had fallen lower than in any of the preceding years, and there has been little improvement since, the tonnage of the 3 sailing vessels built during 1908 being only 146, and of the 16 steamers 943. In 1910 two ketches of 92 tons were built, and 18 steamers with a total tonnage of 1,067.

The tendency to supplant sailing vessels by steamers, and the substitution of iron and steel for wood for the frames and hulls of vessels, have given a check to the wooden ship-building industry, which at one time promised to grow to important dimensions.

Since 1905 it has been possible to obtain the number and tonnage of vessels built abroad for the New South Wales local trade. In 1910 the Customs returns show that 11 vessels valued at £327,750 were imported. A further idea of the large number added to the New South Wales register from ports other than Australian may be gathered from the registration of vessels constructed abroad. During the last six years there have been 54 steam vessels of 35,917 total tonnage, and 29 sailing vessels of 12,735 total tonnage registered, which were not built in the State.

THE NAVIGATION DEPARTMENT.

The Navigation Act, 1901, invests the Superintendent of the Department of Navigation with power to carry out the provisions of the Acts relating to navigation. Other than in the port of Sydney, which is administered by the Sydney Harbour Trust, the Superintendent of Navigation has the general superintendence of all matters within the jurisdiction of the State relating to the issue, suspension, and cancellation of certificates of competency and of service; the preservation of ports, harbours, rivers, &c.; the licensing, appointment, and removal of pilots; the regulation of lighthouses, lights, &c.; the placing or removing of moorings; the granting and regulation of licenses to ballast lighters; the licensing and regulation of watermen, boatmen, and boats plying for hire; steam and other ferry boats; harbour and river steamers; safety and prevention of accidents; unseaworthy ships; life-saving appliances, lights, fog-signals, and sailing rules; and the accommodation for seamen. The Department also administers the Wharfage and Tonnage Rates Act, 1901, in all ports within the jurisdiction of New South Wales, except Port Jackson, which is managed by the Sydney Harbour Trust.

The pilots of New South Wales are Government officers in the receipt of a fixed salary. During the year 1910 there were 18 pilot vessels with 34 pilots; 2,906 vessels were piloted in and out of Sydney and Newcastle, and 1,328 harbour removals of vessels were made. The Department of Navigation also subsidises tugs for the purpose of towing vessels in and out of ports other than Sydney and Newcastle. In 1910 nine tugs, receiving subsidies amounting to £7,317, towed 774 vessels in, and 1,013 vessels out of these ports.

The certificates issued by the Department of Navigation to marine officers in 1910 were as follows:—Master, 50; Mate, 52; Engineer, 101; Marine Surveyor, 3; and Pilotage, 45.

COURTS OF MARINE INQUIRY.

Courts of Marine Inquiry appointed under the Navigation Act conduct inquiries as to shipwrecks and other shipping casualties, or as to charges of incompetency or misconduct on the part of the masters, mates, or engineers of ships, either in the case of British ships on or near the coast of New South

Wales, or on a ship registered in New South Wales, or in the course of a voyage to New South Wales. Appeals and references under the Act are also heard and determined. One or more District Court Judges constitute the Court, assisted by Assessors who have the power to advise, but not to adjudicate, on any matter before the Court.

THE SYDNEY HARBOUR TRUST.

The Sydney Harbour Trust Act, which came into force on the 1st November, 1900, provides for the management of the port of Sydney. A board of three commissioners has been appointed, with power to levy and collect certain dues and charges, and to purchase and resume lands, and for various other purposes. Certain property has been vested in the commissioners, who have been created a body corporate, each member of the board being entitled to hold office for seven years. They have control of the port and shipping, beacons, buoys, wharves, docks, &c., and the preservation and improvement of the port generally is vested in them. The whole of the harbour foreshores have been placed under the administration of the commissioners, and in addition to wharves, jetties, sheds, and warehouses a large area of land adjoining the wharves has been vested in the Trust for sites of stores and warehouses. Until this land is required for trade purposes the commissioners administer the residences and business premises at present situated upon it. The Trust imposes wharfage on all goods unshipped from a vessel berthed at any wharf. Prior to the establishment of the Trust, there was a considerable leakage of revenue to the State, as large tracts of the foreshores were held by private individuals by right of purchase or lease at a low rental, and the wharfage rates were retained by the occupiers.

Since the inauguration of the Trust a large number of wharves, jetties, and the approaches have been remodelled, the accommodation of the port being greatly extended, while works are now in progress which will largely increase the shipping facilities.

The returns of the Sydney Harbour Trust show that 9,332 vessels engaged in coastal, interstate, and oversea trade entered the port of Sydney during the year ended June, 1911; the total tonnage was 7,606,312 tons.

QUARANTINE.

Since the 1st July, 1909, the administration of all matters relating to quarantine has been under the control of the Federal Minister for Trade and Customs. The Quarantine Act defines the vessels which shall be subject to quarantine, and provides for the exclusion, detention, observation, segregation, isolation, protection, and disinfection of vessels, persons, goods, animals, or plants. The stringent clauses of the Act should prevent the introduction or spread of diseases or pests in the Commonwealth. The particulars of vessels examined by the Government Port Health Officers at Sydney and Newcastle, during the last five years, are shown in the following table:—

Year.	Vessels.		Persons.		
	Total.	Detained for special action.	Passengers.	Crews.	Total.
1906	871	141	12,016	42,376	54,392
1907	969	160	9,656	39,298	48,954
1908	740	44	7,300	31,477	38,777
1909	628	67	8,227	29,075	37,302
1910	655	71	11,313	30,328	41,641

DOCKS AND SLIPS.

Adequate accommodation is provided both by the Government and by private enterprise for building, fitting, and repairing ships in the State. At Sydney there are four graving docks, five floating docks, and five patent slips. At Newcastle there are three patent slips; besides which there are other docking and building yards in different parts of the State for the convenience of coasters and small craft.

The Sutherland Graving Dock at Cockatoo Island, Sydney, the property of the Government, is one of the largest single docks in the world; it is 608 feet long and 84 feet broad, and is capable of receiving vessels drawing 32 feet of water. The Fitzroy, another large Government graving dock on Cockatoo Island, is capable of receiving vessels drawing 21 feet 6 inches of water. During the year 1910 considerable extensions were carried out at the Government Dockyard, including the construction of two building slips, adjacent to Fitzroy Dock, commanded by cantilever electrically-driven cranes. One of the berths is capable of allowing the construction of a vessel of 50 feet beam, 450 feet in length, and 30 feet moulded depth; the other being capable of taking a vessel of a similar beam and depth and 350 feet in length. War vessels for the Australian Navy are being constructed at the Fitzroy Dock.

The gross tonnage of vessels docked at the two Government docks during the year 1910 amounted to 102,161 tons. As the greater portion of this tonnage consisted of men-of-war and Commonwealth or State vessels, on which no docking dues are charged, the receipts are comparatively small; the amount for the year ended 30th June, 1911, was £1,456. In addition, the Mort's Dock and Engineering Company own two large graving docks, one at Balmain and the other at Woolwich; the former is 640 feet long, and the latter 675 feet long, and 75 feet on floor, and capable of receiving vessels with a draught of 28 feet.

LIGHTHOUSES.

The coast of New South Wales, which is about 700 miles in length, is well provided with lighthouses, the number at the end of 1910 being 28, as shown below:—

Name.	South Latitude.	Fixed, Flashing, or Revolving.	Colour of Light.	Distance visible (See note).
		<i>From South to North.</i>		Nautical miles.
Green Cape	37 16	Revolving—Flash 50 sec.	White	19
Twofold Bay (Eden) (Look-out Point).	37 4	Fixed	Red	7
Montagu Island—Summit ..	36 15	Fixed and Flashing—Fixed 33 sec., eclipse 16 sec., flash 5 sec., eclipse 16 sec.	White	22
Ulladulla (Warden Head) ..	35 22	Fixed	„	12
Jervis Bay (Point Perpendicular).	35 5	Group Flashing—Flash $\frac{3}{4}$ sec., eclipse 2 sec., flash $1\frac{1}{4}$ sec., eclipse 2 sec., flash $\frac{3}{4}$ sec., eclipse $13\frac{1}{4}$ sec.	White (Incandescent petroleum)	24
Crookhaven River	34 54	Fixed	Red	7
Kiama	34 40	„	Green (gas)	9
Wollongong	34 26	„	White (gas)†	10
Cook River (Botany Bay) ...	33 57	„	White ... ..	...

Name.	South Latitude.	Fixed, Flashing, or Revolving.	Colour of Light.	Distance visible (See note).
	°	<i>From South to North.</i>		Nautical miles.
Port Jackson, Sydney—				
Macquarie (Outer South Head).	33 51	Revolving—Flash every min.	White (electric)	26
Hornby (Inner South Head).	33 50	Fixed	White (gas) ...	15
Broken Bay (Barrenjoey) ...	33 35	„	Red	15
Norah Head	33 17	Flashing—Flash $\frac{1}{2}$ sec. duration, eclipse $4\frac{1}{2}$ sec.	White	18
Port Hunter, Newcastle—				
Nobbys Head (Summit).	32 55	Fixed	„	17
Port Stephens—Stephens Point. *	32 45	Revolving—Red & white light alternately, short eclipse between the two colours.	Red and White alternately. {	W. 17 R. 12
Nelson Head (Summit)..	...	Fixed	White and Red*	8
Sugarloaf Point (Seal Rocks)	32 26	Revolving—Flash every $\frac{1}{2}$ min.	White (Incandescent petroleum)	23
Forster, Cape Hawke (anchorage).	32 11	Fixed	Green (acetylene gas).	5
Crowdy Head (Summit) ...	31 51	„	White and Red†	12
Tacking Point	31 29	„	White	12
Smoky Cape	30 56	Group Flashing—Flash 2 sec., eclipse 2 sec., flash 2 sec., eclipse 2 sec., flash 2 sec., eclipse 20 sec.; triple flash every 30 sec.	„	28
Laggar's Point, Trial Bay ..	30 53	Fixed	„	5
Coff's Harbour Jetty ...	30 18	Fixed	Red	5
South Solitary Island (Summit).	30 12	Revolving—Flash every $\frac{1}{2}$ min.	White (Incandescent petroleum)	20
Clarence River	29 25	Fixed	White	12
Richmond River (2)...	28 51	{ „	„	12
Cape Byron	28 37	{ „	„	10
		Flashing—Flash $\frac{1}{2}$ sec. duration, eclipse $4\frac{1}{2}$ sec.	„	26
Tweed River (Fingal Head)	28 11	Fixed	White	12

* The light shows white to seaward, and over Entrance Shoal, red within the shoal, and up the Channel as far as Nelson Head, white up the Harbour.

† Showing red over Mermaid Reef, and from reef to land.

‡ Shows red over Bellambi Reef.

Distance visible.—The distance is calculated visible to an observer whose eye is elevated 15 feet from the sea level

There are also numerous lighted beacons and leading lights in the ports of Sydney, Newcastle, Ulladulla, Clarence River, Wollongong, and Kiama, for the safety of harbour navigation. The Smoky Cape group-flashing light (visible 28 miles at sea), the Macquarie revolving electric light, on the South Head of Port Jackson, and the Cape Byron group-flashing light, each visible 26 miles, are amongst the most powerful lights in the world. In addition, the light on Point Perpendicular is visible 24 miles; at Seal Rocks, visible 23 miles; and at Montagu Island, visible 22 miles. An annual inspection is made of all lighthouses, and everything in connection therewith is kept in excellent order and condition.

Preparations are being made for the transfer of the control of lighthouses to the Commonwealth, and the necessary legislation has been introduced into the Federal Parliament. An expert has been appointed to advise the Commonwealth regarding the lighthouse services of the States and their requirements, and to collect all the information necessary for the preparation of a Federal scheme of administration.

SHIPWRECKS.

The State seaboard is particularly free of danger to vessels, and where reasonable precautions were taken wrecks have been very rare. There are two lifeboat stations on the coast, one at the Sydney Heads and the other at Newcastle; and the whale-boats at the various pilot stations have been suitably fitted for service. The steam tugs subsidised for the towing of ships in and out of port are also available for the purpose of rendering assistance to vessels in distress; and life-saving appliances are kept at certain places along the coast. A considerable number of vessels trading in Australian waters are now fitted with wireless telegraphy apparatus by which means aid may be summoned to vessels in distress, and many maritime disasters thereby averted.

The wrecks of British merchant vessels reported in 1910 numbered 6 steamers, and of the persons comprising the crew and passengers, 2 lives were lost. The total tonnage of the vessels was 3,291, and the value, including cargoes, £111,765.

During the last five years there have been 31 British merchant vessels wrecked on the shores of New South Wales, or otherwise within the jurisdiction of the State. Of these, 27 were steam and 4 sailing vessels, the total tonnage represented being 10,514. The number of lives lost was 16, the highest number during the five years being 10 in 1908.

Foreign consuls at Sydney have conducted 9 inquiries during the last five years, 3 of which related to steam and 6 to sailing vessels; the loss of 24 lives was reported.

SHIPWRECK RELIEF SOCIETY, &C.

The Royal Shipwreck Relief and Humane Society of New South Wales has been formed to afford relief in cases of distress to dependents of New South Wales seamen who have lost their lives or sustained injury in the discharge of their duties, to relieve crews of vessels and necessitous passengers wrecked in New South Wales waters, and to encourage acts of bravery by granting awards for meritorious deeds in saving human life. The relief granted on account of maritime disasters during the year ended 30th June, 1911, amounted to £1,604.

There are also several missions under the auspices of the religious denominations which are interested in the welfare of seamen, such as the Sydney Mission to Seamen, the St. Vincent de Paul Mission, and the Central Methodist Mission, each of which conducts an institute in Sydney for the use of seafaring men in the port.

GOVERNMENT SHIPPING OFFICES.

Government Shipping Offices have been established at Sydney and Newcastle. At these offices during the year 1910 there were 25,780 engagements registered, and the discharges registered numbered 22,953. Licenses to ship were issued in 4,137 instances. Seamen reported as deserters from British vessels trading on foreign voyages numbered 1,074. The wages paid to seamen through the shipping offices amounted to £81,473.

WAGES OF OFFICERS, SEAMEN, AND OTHERS.

The minimum rates of wages payable to navigating officers, seamen, cooks, and stewards of vessels engaged in Interstate trade by the six companies which comprise the Commonwealth Steamship Owners' Association have been fixed by awards of the Commonwealth Court of Conciliation and Arbitration, as shown hereunder.

The award relating to the masters and navigating officers came into operation at the beginning of 1911, and is to continue for five years.

The minimum rates of wages per calendar month are graded according to the size of the vessels:—

Gross Registered Tonnage.	Master.	Chief Officer.	2nd Officer.	3rd Officer.	4th Officer.	5th Officer.
Passenger vessels—	£	£	£	£	£	£
1,000 tons and under ...	25	16	13	11	10	10
1,000–2,000 ...	28	17	14	12	10	10
2,000–3,000 ...	32	18	15	12	10	10
3,000–4,000 ...	37	19	16	13	10	10
Over 4,000 ...	43	20	17	14	10	10
Cargo vessels—						
1,000 tons and under— ...	24	15	12	11	10	10
1,000–2,000 ...	27	16	13	12	10	10
2,000–3,000 ...	30	17	14	12	10	10
3,000–4,000 ...	33	18	15	13	10	10
Over 4,000 ...	36	18	15	13	10	10

Leave of absence for a continuous period on full pay has also been awarded—the masters being allowed from 21 to 28 days, and the officers 14 days per annum. If required to do duty at his home port from the expiration of one hour after the vessel has been berthed till two hours before its departure, or for more than eight hours per day in any other port, overtime must be paid to a master at the rate of 5s. per hour, and to an officer 2s. 6d. per hour.

The seaman's award will come into operation at the end of 1911, and continue for five years. The minimum rates of wages per month are:—

	£
Boatswain ...	9
A.B., employed as lamp-trimmer ...	9
A.B. ...	8
Ordinary seamen, 18 years and over ...	6
„ under 18 years ...	5
Donkeyman ...	11
Greaser ...	10
Fireman ...	10
Trimmer ...	7

The working hours in port for seamen will be between 7 a.m. and 5 p.m., and must not exceed eight per day. At sea the hours for stokehold men have been fixed at eight per day, and this provision will be extended to deckhands after 30th June, 1912.

The seamen shall not be required to work on Sunday or holidays if in port, except for overtime pay, and each seaman is entitled to an extra day's pay or a day off ashore at his home port for each holiday spent at sea.

The award relating to Marine Cooks, Bakers, and Butchers' Association of Australia came into operation as from 31st December, 1908, for five years.

The minimum wages per month being:—

Passenger vessels—	£	s.
Chief cook ...	13	10
Second cook ...	8	10
Third cook ...	6	10
Ship's cook ...	7	10
Baker ...	9	10
Butcher ...	7	0
Sculleryman ...	5	10
Galley boy ...	3	0
Cargo and collier vessels—		
Chief cook ...	10	0
Assistant cook ...	3	0

Extra payment at the rate of 1s. per hour is made to each member of the galley staff for work in port after 5.30 p.m., when there are no passengers on board, or after 6.30 p.m. when passengers are on board.

With regard to the Stewards and Pantrymen's Association an award was made in May, 1910, to continue for five years. The minimum rates per month are:—

	£	s.
Second steward	7	10
Steward in charge of second saloon	7	10
Pantryman	6	10
Fore cabin steward	6	10
Chief saloon steward	6	0
Barman	5	10
Other stewards of first grade	5	10
Stewards of second grade, under 17 years	2	0
" " 17-19 years	3	0
" " 19-21 years	4	0
" " 21 years or over	5	0
Night-watchman	£7 to	£8
Cargo or collier steward	10	0

The rate of overtime is 10d. per hour for stewards of second grade, and 1s. per hour for others. Overtime is payable for all work in port after 5 p.m., and at terminal ports for work after 10 a.m., or one hour after arrival, whichever is the latest.

The following table shows the average wages, per calendar month, in 1911, paid to white crews of British ocean-going steamers trading with New South Wales. The rates have been obtained from the ship's articles:—

Navigation—		£
Officers, chief ... ..	...	10½ to 20
" second ... ..	...	7 to 17
" third ... ..	...	6½ to 14
" fourth ... ..	...	4½ to 10
Seamen ... ..	...	3½ to 7½
Engineer's Department—		
Engineers, chief ..	...	15½ to 29
" second ... ..	...	11½ to 20
" third ... ..	...	8 to 16
" fourth ... ..	...	6½ to 13
Firemen ... ..	...	4½ to 9½
Trimmmers ... ..	...	4 to 7½
Cooking and Attendance—		
Cooks ... ..	...	5½ to 14
Stewards, chief ... ..	...	6 to 14
" assistant ... ..	...	3 to 7½
Stewardesses ... ..	...	3 to 5

The figures quoted in this table are average rates, but the wages paid on the ocean-going passenger steamers are in nearly every case higher than on the cargo steamers which also carry passengers. The top rates shown are the highest paid on the passenger steamers, while the bottom rates are on the cargo steamers.

COMMERCE.

THE control of the Customs and Excise Department was transferred to the Commonwealth at the commencement of the Federation in 1901, and statistics of the trade of the States, oversea and interstate, have been collected since by the Commonwealth Government. In consequence of the recent alterations in the financial arrangements between the Commonwealth and the States the Federal Government have ceased to collect particulars of the interstate trade, and this information has not been recorded since 13th September, 1910; consequently the figures shown in this chapter relate only to oversea trade, that is, the trade of New South Wales with countries outside the Commonwealth.

The figures showing the trade for 1904 and subsequent years are not strictly comparable with those of previous years, as the oversea trade for the earlier period should be increased on account of transshipments. Until September, 1903, it was the practice of the Customs office to ignore transshipments, so that goods which arrived from a country outside Australia at any Australian port, and were thence transhipped to New South Wales, were recorded as an import from the State where they were transhipped, and not as they ought to have been, as an oversea import. It is impossible now to ascertain the value of these transhipped goods, but it is believed to have ranged each year between £500,000 and £1,000,000.

Another alteration in its methods was made by the Customs Department in 1904, so that goods of Australian produce sent from another State to New South Wales for transshipment abroad were recorded first as an interstate import, and next, as an oversea export. Previously they were not recorded at all. The greater part of such produce came from Queensland and Tasmania, and it is not possible to estimate its value; but it was considerable, inasmuch as in 1904 it amounted to £2,652,285, and in 1909 to £2,445,738.

It will be understood from what has been stated that the oversea exports prior to 1904, to be strictly comparable with those of that year, should be increased by the value of goods sent from other States to New South Wales for transshipment abroad. On the other hand, such goods sent from New South Wales to other States were formerly reckoned among the oversea exports. At the present time the value of goods transferred from one State of the Commonwealth to another State for transshipment to oversea countries is shown as an export from the State from which the goods were finally despatched.

The value of goods imported, as shown in the tables throughout the chapter, is the amount on which duty is payable or would be payable if the duty were *ad valorem*. The value of goods subject to duty is taken to be the fair market value in the principal markets of the country whence the same were exported, with an addition of 10 per cent. to such market value. This addition of 10 per cent. is supposed to cover the cost of packing, insurance, freight, and all other charges. The value of goods exported is the value in the principal markets of the State in the ordinary commercial acceptance of the term.

The following statement shows the annual values of the overseas imports and exports for the period 1885 to 1910:—

Period.	Imports (Average Annual Value).	Exports (Average Annual Value).	Per head of Population.		Total Oversea Trade.
			Imports.	Exports.	
	£	£	£ s. d.	£ s. d.	£ s. d.
1885-89	13,514,534	10,624,323	13 10 2	10 12 6	24 2 8
1890-94	11,689,109	13,138,884	9 19 9	11 4 7	21 4 4
1895-99	12,233,446	16,985,808	9 9 5	13 3 0	22 12 5
1900-04	15,418,701	18,879,740	11 1 4	13 11 0	24 12 4
1905	14,485,123	24,518,531	9 17 4	16 14 1	26 11 5
1906	17,603,503	30,986,888	11 14 7	20 12 11	32 7 6
1907	20,860,391	32,894,073	13 11 4	21 7 10	34 19 2
1908	19,828,486	26,880,709	12 13 1	17 3 1	29 16 2
1909	20,888,019	26,044,789	13 2 5	16 7 2	29 9 7
1910	23,238,993	32,035,451	14 6 6	19 15 0	34 1 6

The trade has grown steadily throughout the whole period. From 1904 it advanced by considerable annual increases until in 1910 it reached the record of £55,274,444, or £34 ls. 6d. per head of population.

The value of the exports from year to year forms the surest index of the progress of a country like New South Wales, and the result of a rise or fall in the value of the staple commodities, or of a depression in production, may be readily traced in the corresponding rise or fall in the export values. The overseas exports in 1907 were the highest for the whole period, both absolutely and relatively; the decrease in value in 1908 and 1909 was caused by the decline in the prices of pastoral and mineral products. In 1910 the value was almost equal to that of 1907. The imports must be considered in connection with loans raised outside the State, as these loans reach the State in the shape of goods which are shown in the import returns. Thus 1881 to 1891, and 1899 to 1902, were years of large borrowing. In the years 1900 and 1901 also the imports underwent abnormal expansion on account of the loading-up by merchants in anticipation of the Federal tariff. The value of overseas imports in 1910 was the highest for the whole period.

ARTICLES OF IMPORT.

In order to show as clearly and concisely as possible the nature of the goods imported into New South Wales, the overseas imports during the last three years have been classified under certain leading heads, as shown in the table below. Articles of Australian produce re-imported from abroad have been included in 1908 only, in which year they were valued at £15,966. The figures for 1908 and 1909 include produce of overseas countries transhipped from other Australian States, but the figures for 1910 show direct imports only, as the interstate transfers for the full year are not available, and

£15,044—goods of Australian produce re-imported from outside the Commonwealth have been excluded:—

Articles of Import.	1908.	1909.	1910.
Food, Drink, Narcotics, and Stimulants—	£	£	£
Animal food	382,283	331,689	300,191
Vegetable food	987,749	1,418,866	1,110,354
Drinks—alcoholic	723,990	711,731	664,522
" non-alcoholic	7,562	7,716	6,701
Tobacco and other narcotics	412,751	285,345	373,364
Other stimulants and condiments	753,575	799,849	603,378
	3,267,910	3,555,196	3,058,510
Live Animals and Plants—			
Animals of all kinds	67,128	61,686	205,744
Plants	34,241	35,138	29,059
	101,369	96,824	234,803
Textile Fabrics, Dress, and Manufactured			
Fibrous Materials—			
Silk manufactures	359,700	386,845	375,149
Woolen manufactures	1,103,936	1,023,904	1,069,660
Cotton and flax manufactures	1,366,042	1,456,916	1,783,335
Manufactures of mixed materials	1,134,828	803,912	1,253,646
Dress	1,520,707	1,571,672	1,615,712
Manufactures of fibrous materials	393,258	551,184	579,794
	5,878,471	5,794,433	6,677,236
Products of Arts and Manufactures, n.e.i.—			
Books and stationery and paper	895,775	882,750	968,991
Musical instruments	268,879	167,535	204,243
Works of art and art materials	41,800	68,733	21,398
Fancy goods	297,662	444,030	426,670
Timepieces, jewellery, and plated ware	421,264	427,487	395,139
Surgical and scientific instruments	137,101	234,000	270,942
Metal manufactures, including machinery	3,762,999	3,431,808	3,465,054
Harness, vehicles, and equipment	375,962	421,377	562,983
Ships, boats, and equipment	192,389	198,441	397,856
Building materials	571,901	221,031	937,552
Furniture	119,441	172,818	122,535
Arms and explosives	248,319	285,656	226,102
Drugs, chemicals, and by-products	470,289	553,647	471,300
Glass and earthenware manufactures	294,802	293,547	306,205
Soap, candles, and paint	287,532	232,385	246,756
Other manufactures, n.e.i.	602,388	808,108	656,359
	8,988,503	8,843,353	9,680,085
Staple Animal and Vegetable Substances, in-			
cluding Mineral Oils—			
Animal substances	358,854	406,424	378,607
Vegetable substances	616,924	1,096,436	419,836
Oils	419,950	439,771	526,727
	1,395,728	1,942,631	1,325,170
Staple Minerals and Metals, including Specie			
and Bullion—			
Specie and bullion	699,498	614,627	650,214
Iron and steel	806,399	1,235,374	1,015,954
Other metals	295,512	280,074	281,052
Coal and shale	1,350	.....	21,490
Stone, clay, and other minerals	69,285	58,934	61,949
	1,872,044	2,189,009	2,060,659
Indefinite articles	213,082	286,157	187,486
Total Imports	21,717,107	22,707,603	23,223,949

From this table it will be seen that the principal articles imported from abroad were those in the class comprising the products of arts and manufactures. By far the largest item in this class was metal manufactures, which included machines and machinery; then followed books, stationery,

and paper; building materials; harness, vehicles, and equipment; drugs and chemicals; and fancy goods. The next in importance was the class including textile fabrics and dress, in which the most important items were cotton and flax manufactures, dress, and woollen manufactures. The class including articles of food and drink came third, the largest item being vegetable food.

EXPORTS OF DOMESTIC PRODUCE.

The exports from New South Wales consist chiefly of goods produced or manufactured in the State, the re-exports being comparatively small.

Under the present conditions of development in the State, the export of domestic produce is a very fair indication of its progress in productive pursuits. Wool constitutes the largest item of domestic export, and any fluctuation in the production or market value of the staple is plainly marked in the whole trade.

Owing to the fact that the Customs Department no longer records the interstate movement of goods it is not possible to ascertain the value of New South Wales produce exported through other States, and the following table shows the direct overseas exports only:—

Year.	Overseas Exports of Domestic Produce.			
	Gold (Bullion and Specie).	Commodities.	Total.	Per head of Population.
	£	£	£	£ s. d.
1900	956,147	10,754,608	11,710,755	8 12 11
1901	288,702	12,978,848	13,267,550	9 14 1
1902	489,862	11,217,252	11,707,114	8 8 3
1903	837,097	11,897,495	12,734,592	9 0 1
1904	718,490	14,517,315	15,235,805	10 11 10
1905	762,058	17,628,763	18,390,821	12 10 7
1906	757,064	19,885,803	20,642,867	13 15 1
1907	731,094	24,500,710	25,231,804	16 8 2
1908	2,410,323	19,192,101	21,602,424	13 15 9
1909	787,377	20,984,203	21,771,580	13 13 6
1910	732,134	26,944,954	27,677,088	17 1 3

In the presentation of these figures the value of commodities has been separated from that of gold, although in dealing with the exports of the Australian States, gold should be reckoned a commodity as much as wool, wheat, or any other article.

The value of domestic exports in 1910 was the highest on record, this satisfactory result being due to the prosperous seasons, as the low prices of pastoral and mineral products which prevailed during 1908 and 1909 showed only a slight improvement.

As a country manufacturing for export New South Wales has not yet achieved a high position. So many other channels have been presented for the successful employment of capital that little attention has been bestowed upon the possibility of New South Wales supplying other countries with its own manufactures; but in time the vast possibilities of the country

in this direction will doubtless be recognised. The following table shows the nature of the domestic exports from New South Wales to oversea countries during the last three years, the classification being similar to that adopted for the imports:—

Articles of Domestic Produce Exported.	1908.	1909.	1910.
Food, Drink, Narcotics, and Stimulants—	£	£	£
Animal food	1,753,845	1,906,605	3,104,873
Vegetable food	356,122	1,020,101	2,772,848
Drinks—alcoholic	21,205	16,115	18,195
„ non-alcoholic	1,476	2,455	2,269
Tobacco and other narcotics	2,334	3,468	3,113
Other stimulants	1,211	1,052	560
	2,136,193	2,949,796	5,901,858
Live animals	99,801	57,320	76,508
Plants	21,777	17,105	26,826
	121,578	74,425	103,334
Textile fabrics, dress, and manufactured fibrous materials	39,727	50,131	52,060
Products of arts and manufactures, n.e.i.	517,462	503,578	562,304
Staple Animal and Vegetable Substances, including Mineral Oils—			
Animal substances	12,888,807	13,941,484	16,679,549
Vegetable substances	23,102	33,674	22,391
Oils	114,206	132,106	199,116
	13,026,115	14,107,264	16,901,056
Staple minerals and metals	3,062,975	2,644,749	3,245,939
Specie and bullion	2,663,487	1,433,483	903,759
Indefinite articles	4,887	8,154	6,778
Total... ..	21,602,424	21,771,580	27,677,088

By far the larger portion of the exports consists of raw materials. The following table shows during the last three years the quantities and values of the principal articles of New South Wales produce exported direct to countries beyond the Commonwealth, and indicates that the export trade depends on the production from primary industries, and is affected by the variation in prices:—

Articles Exported Oversea.	Quantity.			Value.		
	1908.	1909.	1910.	1908.	1909.	1910.
				£	£	£
Wool lb.	262,200,071	279,852,326	320,484,134	11,219,666	11,654,400	13,734,456
Leather				281,790	268,362	319,977
Tallow cwt.	311,515	521,573	648,031	424,676	684,189	976,335
Skins and Hides				822,660	1,173,125	1,499,852
Meats, all kinds				933,294	1,147,761	1,873,103
Butter lb.	17,261,331	17,381,117	27,047,481	813,490	752,487	1,223,518
Wheat bushel	413,558	3,188,417	6,696,968	92,621	684,901	2,381,141
Flour ton	16,463	20,336	569,350	158,132	216,846	261,889
Gold, bullion oz.	195,717	209,645	160,760	748,577	787,329	575,586
Copper, ingots and matte .. cwt.	193,700	259,574	359,831	554,599	756,075	1,029,966
„ ore	5,434	1,075	54,592	5,422	592	26,832
Silver and Lead				824,832	437,688	513,328
Spelter and Concentrates .. cwt.	930,961	1,724,439	2,051,158	141,139	397,038	405,277
Tin, ingots	39,661	31,018	35,771	262,763	227,817	277,037
„ ore	16,801	19,831	20,400	79,132	83,938	100,393
Coal and Coke ton	2,585,945	1,604,372	1,710,417	1,376,196	854,867	918,281
Timber, dressed and undressed ..				282,248	240,844	240,182
Cocconut Oil cwt.	79,210	90,021	105,069	103,378	123,122	192,145

The figures in the above table represent the direct exports only. In almost every case, and especially for wool and silver-lead, the real exports would appear very much larger if the Interstate transfers in transit were added.

The relative importance of these articles will be seen from the following statement, which is based on the experience of the three years in the above table, and which shows the proportion per cent. of the value of the export of each article to the total oversea export of domestic produce:—

Article.	Proportion per cent.	Article.	Proportion per cent.
Wool	51·5	Copper	3·3
Leather	1·2	Silver and Lead	2·5
Tallow	2·9	Spelter and Concentrates	1·4
Skins and Hides	4·9	Tin	1·5
Meat	5·6	Coal and Coke	4·4
Butter	3·9	Timber	1·1
Wheat and Flour	5·4	All other articles... ..	7·4
Gold	3·0		100·0

EXPORT OF WOOL.

Wool is the great staple export, and constitutes over one-half of the value of the domestic exports. A marked feature of the wool trade is the growing disposition of buyers on the Continent of Europe to purchase their supplies direct from the State instead of obtaining them through the London brokers. Year by year the representatives of foreign manufacturers who visit Sydney for the purpose of attending the wool sales become more numerous. A little more than twenty years ago all the wool destined for Europe was transhipped in London, but in 1910 the shipments of the staple of local growth to Belgium, France, Germany, and Italy amounted to 230,574,016 lb., valued at £9,582,782. A direct trade with the Continent is desirable, and its growth will be seen from the following table, giving at intervals since 1881 the destination of the wool exported, and the proportion taken by each country:—

Country.	Value.				Proportion.			
	1881.	1891.	1901.	1910.	1881.	1891.	1901.	1910.
	£	£	£	£	%	%	%	%
United Kingdom	4,062,766	5,741,350	3,853,008	3,636,035	98·9	74·9	51·9	26·5
Belgium	3,933	1,019,614	874,012	2,010,910	·1	13·3	11·8	14·6
Germany	988	407,924	1,238,492	3,845,505	·0	5·3	16·7	28·0
France .. ..	....	409,553	1,295,274	3,602,923	·0	5·3	17·5	26·2
United States... ..	40,008	88,981	39,159	136,757	1·0	1·2	·5	1·0
Other Countries—Oversea ..	20	3,038	120,174	502,326	·0	·0	1·6	3·7
Total	4,107,715	7,670,460	7,420,119	13,734,456	100·0	100·0	100·0	100·0

It will be observed that since 1881 the wool exported to the United Kingdom has decreased from 98.9 to 26.5 per cent. France and Germany both show proportionate increases throughout the whole period, rising from nil in 1881 to 26.2 per cent. for France, and 28.0 per cent. for Germany in 1910.

The other products of the pastoral industry—leather, tallow, skins, hides, and meats—form an export of considerable value, and amount to 15 per cent. of the total.

Shipments of the principal minerals are also made on a large scale. Coal forms one of the staple exports of New South Wales, the quantity shipped beyond the Commonwealth in 1910 reaching 1,700,184 tons, valued at £907,961.

The export of silver, silver-lead, and ore has become important since 1884, but the total exports as shown in a previous table are exclusive of large quantities sent to other States for export abroad, notably the production of the Broken Hill mines, which is transferred to South Australia.

BOUNTY ON EXPORTS.

The Bounties Act, 1907 (Commonwealth), provides for the payment of bounties on certain goods grown, produced, or manufactured in Australia by white labour at standard rates of wages. With regard to exports, a bounty at the rate of 1½d. per lb. is obtainable on combed wool or tops when exported from Australia.

RE-EXPORT TRADE.

The re-export trade of the State increased considerably until 1889, but thereafter a marked decline was experienced. In 1895, however, an improvement was manifested, which has continued. The shipping facilities of Sydney formerly attracted to the port a large amount of trade from New Zealand, Queensland, and the South Seas, for transshipment to Europe; but the establishment of direct communication between these countries and Europe checked to some extent the expansion of the re-export trade.

Gold, consisting largely of Queensland and New Zealand metal coined at the mint and shipped by the banks to London, the United States, and the East, forms a large proportion of the trade. There is also a large re-export of wool, chiefly the produce of Queensland, and a fairly large trade in provisions and manufactured articles of British and foreign production with New Zealand, New Caledonia, Fiji, and other islands of the Pacific.

The total value of the re-exports in 1910 was £4,358,363, of which £2,660,263 was Australian produce, and £1,698,100 the produce of other countries.

Amongst raw commodities the principal articles re-exported are tallow, skins and hides, silver and lead, tin, and other metals, and wool; while the manufactured articles are chiefly apparel and soft goods, metal manufactures, iron and steel, machinery, drugs and chemicals, books and stationery, boots, beer and spirits, tobacco, cigars and cigarettes, and also large quantities of provisions.

TRADE WITH VARIOUS COUNTRIES.

The trade of the State with the United Kingdom is greater than with any other country. It must be remarked, however, that the real trade with the United Kingdom is not shown, because on the one side foreign goods are sent to Australia through London, and on the other a large portion of the exports from New South Wales to Victoria and South Australia is

eventually shipped to the United Kingdom. The following statement shows the direct overseas trade of New South Wales during 1910 with the principal countries:—

Country.	Imports.	Exports.	Total Trade.
British—	£	£	£
United Kingdom	14,385,633	13,318,099	27,703,732
Canada	356,593	76,866	433,459
Fiji	161,894	410,926	572,820
Hong Kong	95,450	414,042	509,492
India and Ceylon	1,135,359	187,128	1,322,487
New Zealand	1,180,011	1,319,358	2,499,369
Papua	50,411	79,057	129,468
South Africa	20,313	295,250	315,563
Straits Settlements	132,245	246,513	378,758
Other British Countries	108,082	52,247	160,329
	17,625,991	16,399,486	34,025,477
Foreign—			
Belgium	555,298	2,970,187	3,525,485
Chile	5,716	304,280	309,996
China	33,720	64,192	102,912
France	166,986	4,232,137	4,399,123
Germany	1,288,574	4,934,474	6,223,048
Italy	129,246	234,419	363,665
Japan	335,320	524,598	859,918
Java	324,130	123,342	447,472
Netherlands	60,664	93,204	153,868
New Caledonia	39,242	115,458	154,700
Norway	114,020	5	114,025
Philippine Islands	37,492	226,134	263,626
South Sea Islands	164,530	214,651	379,181
Sweden	133,824	713	134,537
United States	2,150,953	865,326	3,016,279
Other Foreign Countries	68,287	732,845	801,132
	5,613,002	15,635,965	21,248,967
Total	£ 23,238,993	32,035,451	55,274,444

The statement represents the direct trade with the countries specified, irrespective of the place of origin, or of the ultimate disposal of the goods. It is impossible to trace the exports to their destination, but, so far as the imports are concerned, the Customs Department records the countries of origin of the goods, that is to say, the countries where the goods were actually

produced or manufactured. The following statement affords a comparison of the oversea imports during 1910, according to the countries whence they were directly shipped, and according to the countries of origin. In each case the proportions of each to the total imports are attached:—

Country.	Direct Imports.	Origin of Imports.	Proportion per cent.	
			Direct Imports.	Origin of Imports.
British—	£	£		
United Kingdom	14,385,633	11,486,270	61·90	49·43
Canada	356,593	353,874	1·53	1·52
Fiji	161,894	136,626	·70	·59
Hong Kong	95,450	1,574	·41	·01
India and Ceylon	1,135,359	1,162,277	4·89	5·00
New Zealand	1,180,011	1,103,275	5·08	4·75
Papua	50,411	49,923	·22	·21
South Africa	20,313	129,899	·09	·56
Straits Settlements	132,245	51,983	·57	·22
Other British Countries	108,082	186,979	·46	·81
	17,625,991	14,662,680	75·85	63·10
Foreign—				
Austria	1,398	123,850	·01	·53
Belgium	555,298	277,187	2·39	1·19
China	38,720	153,088	·17	·66
France	166,986	722,391	·72	3·11
Germany	1,288,574	1,878,057	5·54	8·08
Italy	129,246	179,387	·56	·77
Japan	335,320	335,388	1·44	1·44
Java	324,130	321,667	1·39	1·38
Netherlands	60,664	125,929	·26	·54
Norway	114,020	140,706	·49	·61
South Sea Islands	164,530	210,877	·71	·91
Sumatra ... ..	...	61,898	...	·27
Sweden	133,824	204,996	·58	·88
Switzerland	94	380,035	...	1·64
United States	2,150,953	3,118,528	9·25	13·42
Other Foreign Countries	149,245	342,329	·64	1·47
	5,613,002	8,576,313	24·15	36·90
Total	£ 23,238,993	23,238,993	100·00	100·00

During the year Australian produce to the value of £15,044 was re-imported from outside the Commonwealth.

The table shows that there were fairly considerable differences in the case of the United Kingdom, Belgium, France, Germany, Switzerland, and the United States, and smaller differences in the case of all the countries, between the direct imports and those according to country of origin. According to the direct imports about 62 per cent. of the total was received from the United Kingdom, 14 per cent. from British possessions, and 24 per cent. from foreign countries, whereas, in reality, the proportion of British goods imported was 49 per cent., and of foreign goods 37 per cent., the proportion of the produce of British possessions being practically unaltered.

The table below shows, in quinquennial periods since 1880, the volume of overseas imports divided under the three heads—the United Kingdom, British possessions, and Foreign countries:—

Period.	Imports from—			Total Imports.
	United Kingdom.	British Possessions.	Foreign Countries.	
	£	£	£	£
1880-84 ...	48,726,544	7,092,661	9,502,846	65,322,051
1885-89 ...	48,279,604	8,134,224	11,063,225	67,477,053
1890-94 ...	41,293,833	6,943,513	10,208,197	58,445,543
1895-99 ...	37,123,060	7,775,602	16,271,863	61,170,525
1900-04 ...	43,118,128	10,147,402	23,827,977	77,093,507
1905-09 ...	55,312,612	15,422,106	22,930,804	93,665,522
1910 ...	14,385,633	3,240,358	5,613,002	23,238,993

If these figures be stated as proportions of the total imports the following results are obtained:—

Period.	United Kingdom.	British Possessions.	Foreign Countries.	Total.
	%	%	%	%
1880-84 ...	74·59	10·86	14·55	100
1885-89 ...	71·55	12·05	16·40	100
1890-94 ...	70·65	11·88	17·47	100
1895-99 ...	60·69	12·71	26·60	100
1900-04 ...	55·93	13·16	30·91	100
1905-09 ...	59·05	16·47	24·48	100
1910 ...	61·90	13·95	24·15	100

The diversion of trade shown by the table is rather remarkable, but is probably more apparent than real. Twenty years ago the ships which now trade direct between Australia and Europe and America were either just beginning to run or were not running at all, and goods were sent to

Australia through London to a greater extent than is now the case. Since 1880 the proportion of imports from British possessions has hardly varied, but of late years the proportion of imports from foreign countries has increased materially.

The next table shows the oversea exports from New South Wales under the same heads and for the same periods as in the preceding tables, and a careful consideration of the figures will show that the changes in the exports have been very similar to those in the imports:—

Period.	Exports to—			Total Exports.
	United Kingdom.	British Possessions.	Foreign Countries.	
	£	£	£	£
1880-84	39,964,529	5,449,726	5,925,747	51,340,002
1885-89	37,727,437	4,508,809	10,885,370	53,121,616
1890-94	39,358,695	4,742,725	21,592,966	65,694,386
1895-99	43,203,489	6,137,642	35,585,823	84,926,954
1900-04	40,732,026	14,441,877	39,224,800	94,398,703
1905-09	57,950,739	18,737,850	64,636,404	141,324,993
1910	13,318,099	3,081,387	15,635,965	32,035,451

Proportion per cent.

1880-84	77·84	10·62	11·54	100
1885-89	71·02	8·49	20·49	100
1890-94	59·91	7·22	32·87	100
1895-99	50·87	7·23	41·90	100
1900-04	43·15	15·30	41·55	100
1905-09	41·00	13·26	45·74	100
1910	41·57	9·62	48·81	100

The exports show a similar tendency to the imports. Both absolutely and relatively the exports to foreign countries have increased continuously; so that the proportion of goods now sent to the United Kingdom is less than to foreign countries. The reason is similar to that given regarding the imports, namely, the opening up of direct communication with the various countries, and also to the fact that gold is now shipped direct to those countries on account of the United Kingdom. The exports to British possessions show remarkable fluctuations throughout the period on account of the variations in the shipments of gold and silver to India and Ceylon.

TRADE WITH THE UNITED KINGDOM.

As previous tables show, the direct trade with the United Kingdom is decreasing, the development of facilities for communication having caused a great increase in trade with the British possessions and with foreign countries.

The total value of the produce of the United Kingdom imported into the State during 1910 was £11,486,270. A classification of the principal articles is given below:—

Article.	Value.	Article.	Value.
	£		£
Ale and beer	115,673	Glass and glassware	58,397
Apparel and soft goods—		Hats and caps	111,953
Apparel and attire, N.E.I. ...	629,629	Instruments	100,310
Cosies, cushions, &c. ...	116,699	Iron and steel	869,756
Curtains and blinds ...	30,421	Jewellery	113,272
Piece goods	2,497,901	Leather and leatherware ...	66,049
Sewing silks, &c.	160,753	Machines and machinery ...	781,465
Arms, ammunition, and explosives	179,115	Medicines	70,762
Articles for Army and Navy ...	72,785	Metal manufactures	849,643
Articles for the Commonwealth	67,736	Milk and Cream, preserved ...	65,022
Books	167,000	Oilmen's stores	77,184
Boots and shoes	110,257	Oil, linseed	71,013
Brushware	30,069	Paints and colours	126,347
Canvas and duck	83,291	Paper	250,283
Carpets and carpeting	64,211	Perfumery	26,117
Cocoa and chocolate	108,677	Photographic materials ...	30,760
Confectionery	32,617	Pickles, sauces, &c.	46,827
Copper	37,055	Rails, &c., for railways ...	161,801
Cordage and Twines—		Rubber and rubber manufactures	79,695
Metal	40,847	Specie, silver	146,000
Other	47,344	Spirits	288,633
Cutlery	75,724	Stationery	70,536
Drugs and chemicals	80,698	Tinned plates and sheets ...	129,524
Earthenware, &c.	60,650	Tools of trade	112,542
Electrical articles and materials	93,810	Varnishes	36,169
Fancy goods	90,009	Vehicles	292,465
Fish (all kinds)	51,439	Vessels	304,000
Floor cloths and coverings ...	169,180	Yarns	34,797
Furniture... ..	44,125		

The largest market for the surplus products of New South Wales is found in the United Kingdom, which takes two-fifths of the export to overseas countries. The value of domestic produce sent to the United Kingdom during 1910 was £11,834,876, the principal articles being as follows:—

Article.	Value.	Article.	Value.
	£		£
Butter	1,125,472	Meats	1,708,693
Copper	439,008	Oil—Cocanut	151,945
Gold	544,730	Skins and hides	683,490
Silver and lead	421,622	Tallow... ..	822,462
Tin, ingots	170,365	Wool	3,636,035
Wheat and flour	1,789,584	Zinc concentrates	27,617
Leather... ..	206,593		

IMPORTS FROM BRITISH POSSESSIONS.

The following table shows the imports into New South Wales from the chief British possessions at decennial periods since 1870, including the year 1910:—

Country.	1870.	1880.	1890.	1900.	1910.
	£	£	£	£	£
Canada	1,726	17,530	18,784	114,321	356,593
Cape Colony .. .. .	.....	5	55	943	12,950
Ceylon	210,114	13,668	43,702	213,195	357,522
Fiji .. .. .	.....	54,135	99,853	60,831	181,894
Hong Kong	48,808	228,526	271,730	67,928	95,450
India	2,567	853	195,368	388,546	777,887
Mauritius	325,030	207,107	5,059	76,779	1,002
Natal .. .. .	.....	.....	.....	70	7,392
New Zealand	298,951	460,735	932,073	1,348,605	1,180,011
Straits Settlements .. .. .	.....	10,045	27,148	40,301	182,245
Other British Possessions	60	1,665	1,626	42,150	157,492
Total	£ 887,906	1,000,069	1,595,398	2,353,759	3,240,358

As the table shows, imports from New Zealand, India, and Ceylon, Canada, Fiji, and Hong Kong amounted in 1910 to £2,929,307, or about 90 per cent. of the total from all British possessions.

New Zealand gave promise at an early period of becoming one of the leading customers of this State; but from various causes both the imports and the exports fell away very considerably. During the last twenty years, however, there has been a considerable increase, particularly in the export trade. The value of the imports fluctuates with the character of the season in New South Wales, a bad year being always attended with large importations of New Zealand oats and other produce.

Hong Kong commercially is a port of China, and a considerable portion of the Chinese trade with New South Wales is transacted *via* that port. The Indian trade has grown up almost entirely since 1880, but it fluctuates largely owing to the variable exports of gold specie. The Fiji trade is valuable, and shows a remarkable increase since 1900.

The imports from British possessions, classified according to country of origin, are shown below for the last two years in comparison with 1904, the first year for which this information was obtainable:—

Country.	1904.	1909.	1910.
	£	£	£
Burmah	32,459	55,305	75,681
Canada	131,487	373,403	353,874
Ceylon	252,609	361,036	356,580
Fiji	53,102	321,465	136,626
Hong Kong	7,197	1,580	1,574
India	364,107	639,060	805,697
Jamaica	9,937	34,105	40,816
New Zealand	820,900	1,113,483	1,103,275
Ocean Island	6,986	28,209	31,292
Papua	40,012	58,397	49,923
Straits Settlements	33,382	59,166	51,983
Union of South Africa	3,227	145,540	129,849
Other British Possessions	35,499	95,226	39,190
Total	1,790,906	3,285,975	3,176,410

The principal articles of New Zealand produce imported during 1910 were gold bullion, £484,165; New Zealand pine, £235,463; hides and skins, £57,563; flax, £39,073; horses, £163,203; stud sheep, £11,194; fish, £8,128; barley;.

£8,379; hops, £11,380; seeds, £7,038; and articles for the army and navy, £14,004.

Amongst the chief imports of Indian origin were bags and sacks, £461,891; hessians, £80,255; tea, £129,184; castor oil, £29,613; rice, £12,556; and paraffin, £12,653. From Ceylon, tea to the value of £345,974 was imported during the year. The Indian and Ceylon teas have quite displaced the Chinese article in the public estimation; in 1890 the value of tea imported from China and Hong Kong was £241,331, and from India and Ceylon, £43,317, but in 1910 the import of Chinese tea amounted only to £34,656, while the value of the Indian and Ceylon import was £475,158.

The Fijian produce imported comprised copra, the value of which in 1910 amounted to £12,435; sugar, £72,968; molasses, £11,070; and bananas, £33,063. Trade in bananas and sugar, which had been greatly restricted by the Federal tariff, has recovered; during 1910, however, the crops in Fiji were devastated by a hurricane.

Prior to 1893 there was a fair import trade in lumber with Canada, but the establishment of a direct line of steamers between Sydney and Vancouver in that year had the effect of increasing the number of articles imported, and of creating a new export trade. The chief imports in 1910 of articles of Canadian origin were machines and machinery, £87,242; printing paper, £100,242; preserved fish, £13,698; metal manufactures, £9,877; apples, £13,760; timber, £56,360; vehicles and parts, £25,016; and furniture, £6,422.

Amongst the chief imports produced in other British possessions may be mentioned gold bullion from Papua, valued at £34,739; manures (rock phosphates) from Ocean Island, £31,278; from Burmah, rice, £64,032; and paraffin, £7,162; and from Jamaica, rum, £38,189.

The chief imports the production of the Straits Settlements were spices, £12,028; naphtha, £5,174; sago and tapioca, £17,942; rubber and rubber manufactures, £5,582; bamboo and canes, £5,260.

The products of Cape Colony which were imported in 1910, comprised precious stones, unset, £110,439; maize, £11,295; and of Natal, tanning bark, £4,811.

EXPORTS TO BRITISH POSSESSIONS.

The exports from New South Wales to the chief British possessions at the same periods were as shown below —

Country.	1870.	1880.	1890.	1900.	1910.
	£	£	£	£	£
Canada .. .. .	.....	.....	10	66,403	76,866
Cape Colony .. .. .	.....	712	1,014	600,233	135,603
Ceylon	1,258,813	1,781	4,080	58,402	88,211
Fiji .. .. .	.....	120,518	98,951	183,579	410,926
Hong Kong	51,651	137,577	255,050	218,936	414,042
India	11,176	19,611	253,280	115,894	153,917
Mauritius	73,307	14,999	25,815	8,613	4,813
Natal .. .. .	.....	.....	.....	155,254	154,209
New Zealand	197,025	525,174	294,113	826,662	1,319,358
Straits Settlements	2,421	5,392	34,347	39,898	246,513
Other British Possessions .. .. .	.....	2,915	1,654	40,973	131,929
Total	£ 1,594,393	828,679	968,314	2,314,807	3,081,387

From the above table it will be seen that the bulk of the exports is taken by New Zealand, Hong Kong, Fiji, and Straits Settlements, in the order named, New Zealand receiving nearly 43 per cent. of the total exports to all British possessions in 1910.

The chief exports of New South Wales produce to India were gold bullion, £15,015; horses, £20,522; timber, £45,318; coal, £32,753; and copper ingots, £8,959. Pig-lead produced in other Australian States to the value of £17,355 was also sent to India. Ceylon received in 1910 gold specie, produced in New South Wales, £3,361, and re-exports of pig-lead, £5,116, and gold specie, £11,629.

Amongst the principal exports to Cape Colony were New South Wales leather, £72,230; tallow, £4,057; timber, £8,225; and meats, £9,077. Sugar, valued at £29,049, was re-exported.

To Natal the New South Wales products exported comprised meats, £35,020; leather, £16,239; cocoanut oil, £8,445; tallow, £33,040; and timber, £6,261. There was a re-export of sugar, valued at £33,672. The trade with South Africa, which assumed considerable proportions during the war, fell away largely in 1903, nevertheless, the accessibility of its markets makes South Africa a convenient outlet for Australia's exportable surplus of forage and foodstuffs.

Shipments for 1910 to Hong Kong included the following articles of New South Wales produce:—Timber, £19,208; butter, £11,253; leather, £6,490; coal, £5,321. Pig-lead, other Australian produce, to the value of £64,422, was re-exported, and the total amount of gold bullion and specie sent to Hong Kong was £284,289.

The principal articles produced in this State and sent to New Zealand during 1910 were books, £8,155; coal, £117,974; drugs and chemicals, £5,397; citrons, £18,320; other fresh fruits, £8,049; glassware, £3,358; flour, £12,896; jewellery, £3,222; lead, £11,596; leather, £4,552; timber, £72,320; tin ingots, £10,579; wines, £3,058; manures, £56,200; machines, £6,102; metal manufactures, £8,712; rubber manufactures, £7,308; seeds, £5,437; and soap, £23,743. Articles re-exported to New Zealand included apparel and attire, £6,231; books, £24,822; drugs and chemicals, £7,172; electrical materials, £7,366; fancy goods, £11,594; fresh fruits, £7,765; glassware, £4,729; rice, £23,787; instruments, £31,343; iron and steel, £6,295; lead, £19,266; leather, £14,243; piece-goods, £34,737; machines and machinery, £45,880; metal manufactures, £24,634; potatoes, £12,869; spirits, £13,981; timber, £6,029; tobacco, £11,065; wines, £7,006; and tea, £38,469. Gold bullion and specie of an aggregate value of £302,990 was sent to New Zealand during 1910.

The exports of the State's products to Fiji in 1910 included ammonia, £6,619; apparel and attire, £7,845; biscuits, £10,533; coal, £17,899; bran, pollard, and sharps, £18,115; flour, £13,631; metal manufactures, £10,015; timber, £12,133; and vessels, £6,000. The re-exports included apparel and attire, £4,644; biscuits, £10,613; iron and steel, £24,075; machines and machinery, £16,098; piece-goods, £10,198; spirits, £8,046; sugar, £16,031; and vessels, £12,500. The total export of gold specie to Fiji was £34,300.

The principal exports of New South Wales produce to the Straits Settlements were coal, £72,553; horses, £6,645; and flour, £37,996. Australian tin ore, £117,837, of which £100,393 was produced in this State, was sent to the Straits Settlements to be smelted.

The principal products exported to Canada were butter, £21,348; skins and hides, £8,630; meats, £23,440; and timber, £7,008.

The articles of New South Wales produce sent to Papua included meats, £6,397; and medicines, £20,796. The re-exports comprised medicines £11,117; and tobacco, £9,441.

Frozen mutton, £10,140, was exported to Malta.

IMPORTS FROM FOREIGN COUNTRIES.

The total value of the trade of the State with countries other than British is appreciably increasing.

Every year steamers of greater tonnage and higher speed are visiting the Commonwealth of Australia, and a considerable expansion of commerce must take place, owing to the new outlets for trade which have thus been provided. The values of the direct imports into New South Wales from the principal foreign countries during the period 1870-1910 were as shown below:—

Country.	1870.	1880.	1890.	1900.	1910.
	£	£	£	£	£
Belgium			130,819	147,661	555,298
France and New Caledonia ..	66,119	160,348	201,791	288,593	206,228
Germany		47,169	639,475	1,108,664	1,288,574
Netherlands and Java ..	71,365	136,640	122,342	108,493	334,794
Norway			20,891	77,596	114,020
Italy			23,961	92,732	129,246
Sweden			9,862	31,801	133,824
China	253,412	358,129	241,840	190,456	38,720
Japan		5,419	22,040	122,041	335,320
South Sea Islands	13,024	42,789	40,214	107,488	164,530
United States	154,799	387,056	859,102	2,557,961	2,150,953
Other Foreign Countries ..	252,927	16,730	29,624	234,629	111,495
Total	£ 816,646	1,154,280	2,341,951	5,120,115	5,613,002

As the table shows, the direct imports from the United States amounted, in 1910, to £2,150,953, or nearly two-fifths of the total imports from all foreign countries. Next in order comes Germany with £1,288,574, followed by Belgium with £555,298, Japan with £335,320, and Java with £324,130.

At one time the United States was the largest foreign market for the exports of this State, but the direct shipments of wool to the Continent of Europe, which are steadily increasing, have placed it below Germany, France, and Belgium, although the large shipments of gold in several years may seem to indicate otherwise. The import trade with America, however, is still greater than that transacted direct with the principal Continental countries, although the imports from Germany are growing.

The direct trade between this State and Belgium began in 1881, and may be attributed, to a large extent, to the International Exhibition held in Sydney during 1879-80. In point of value the Belgian trade is larger than that of any foreign country, Germany, the United States, and France excepted; but the port of Antwerp, which receives the bulk of the trade, is the distributing centre for a great part of the wool destined for French, German, and other Continental markets, and it is not possible to say how much of the goods shipped to Belgium are for local requirements.

A large trade has been maintained with Germany since 1879, and has attained considerable dimensions, exceeding that with any other foreign country, although the customs returns may not always disclose this fact.

The French trade has risen in importance since 1881, but it has been accompanied by a corresponding falling-off in the trade with New Caledonia, the chief dependency of France in the South Pacific. New Caledonia is an important market for the produce of the State, though its value has been affected by the establishment of regular communication between France and her dependency, and by increases in the French tariff during recent years.

Regular communication with Java and other islands of the East Indies is now conducted by steamers of British, German, and Dutch lines, and there has been a considerable increase in the direct trade with New South Wales.

The other foreign countries whose trade with New South Wales is of importance, are China and Japan. The imports and exports of Hong Kong, however, belong in reality to the Chinese Empire generally, and the diminution which has taken place in the China trade since 1881 is to be attributed largely to the transference of part of the trade from the ports of the Chinese Empire to Hong Kong. But, when allowance is made for this transference, it will be found that the actual loss of trade is considerable.

The war with China gave Japan a new importance, which was enhanced by the Russo-Japanese conflict, so that in the future Japan may be expected to offer a large market for many of the products of New South Wales.

The foreign imports classified according to country of origin are shown below for the years 1904, 1909, and 1910.

Country.	1904.	1909.	1910.
	£	£	£
Austria	34,275	118,196	123,850
Belgium	78,391	201,647	277,187
China	110,446	128,600	153,088
France	435,484	677,868	722,391
Germany	1,005,184	1,645,556	1,878,057
Italy	77,002	153,939	179,387
Japan	192,360	282,100	335,388
Java	20,560	558,690	321,667
Netherlands	79,287	111,190	125,929
New Caledonia	27,561	27,314	32,094
Norway	119,575	128,409	140,706
Philippine Islands	21,998	29,491	37,631
Portugal	4,644	21,978	28,524
South Sea Islands	66,412	195,121	210,877
Spain	18,669	36,140	40,490
Sumatra	28,524	19,720	61,898
Sweden	45,161	159,857	204,996
Switzerland	77,228	302,391	380,035
United States	2,034,695	2,660,838	3,118,528
Other Foreign Countries	140,479	191,533	203,590
Total	£ 4,617,935	7,650,578	8,576,313

The principal articles of foreign produce imported during the year 1910, and the countries of origin are shown below:—

Austria.—Apparel and attire, £13,489; boots and shoes, £12,447; china-ware, £6,492; fancy goods, £8,469; furniture, £11,429; and hair nets, £5,213.

Belgium.—Apparel and attire, £14,886; glass and glassware, £42,307; dry gums, £9,729; iron and steel, £28,793; machines and machinery, £11,100; matches and vestas, £17,575; metal manufactures, £20,306; piece-goods, £51,371; paper, £10,323; rails, &c., for railways, £9,095; vehicles, £13,566; and zinc, £14,943.

France.—Acids, £9,657; apparel and attire, £28,949; cream of tartar, £50,719; fancy goods, £17,777; gloves, £26,454; piece-goods, £240,131; smoking pipes, &c., £13,449; rubber and rubber manufactures, £15,008; brandy, £58,560; trimmings, £16,243; vehicles and parts, £47,263; wines, £43,403.

Switzerland.—Apparel and attire, £14,702; cocoa and chocolate, £19,050; hats and caps, £10,806; piece-goods, £263,998; watches and clocks, £39,263.

Germany.—Ale and beer, £23,410; apparel, £222,559; bags, baskets, &c., £42,562; cement, £16,413; chinaware, £23,186; cosies and cushions, £15,449; cutlery, £11,433; drugs and chemicals, £26,026; electrical materials, £20,877; fancy goods, £50,177; glass and glassware, £41,389; gloves, £32,762; hats

and caps, £18,090; hops, £10,280; instruments, £159,791; iron and steel, £69,060; jewellery, £32,923; lamps and lampware, £21,075; machines and machinery, £102,788; wire, £176,518; other metal manufactures, £97,881; paper, £67,355; piece-goods, £189,004; rails, &c., for railways, £6,128; rubber and manufactures, £24,358; spectacles, &c., £9,931; stationery, £21,238; tools of trade, £11,706; trimmings, £25,989; vehicles, £21,321; and zinc, £45,307.

Netherlands.—Candles, £5,743; cocoa and chocolate, £18,525; straw-board, £11,537; piece-goods, £19,338; and gin, £47,955.

Norway.—Carbide of calcium, £13,369; fish, £13,633; printing paper, £39,667; other paper, £13,652; timber, £30,772; and vessels, £23,750.

Sweden.—Carbide of calcium, £9,437; cream separators, £35,436; telephones and appliances, £21,608; matches and vestas, £9,302; superphosphates, £6,267; printing paper, £19,283; other paper, £24,644; and timber, £57,073.

Spain.—Corks, £18,217; and nuts, £5,783.

Portugal.—Corks, £7,636; and fish, £16,858.

Italy.—Citrons, £4,678; gloves, £6,399; hats and caps, £43,968; matches and vestas, £12,010; nuts, £4,709; oils, £8,954; silk piece-goods, £17,196; stone, £15,789; sulphur, £4,015; and vehicles, £24,388.

Greece.—Dried fruits, £15,325.

Turkey.—Dried fruits, £7,688; seeds, £6,350.

Arabia.—Dates, £8,236.

China.—Rice, £18,955; hats and caps, £6,793; nuts, £8,667; oils, £6,385; silk piece-goods, £27,962; tea, £34,656.

Japan.—Apparel and attire, £25,887; bags, baskets, &c., £9,396; cosies and cushions, &c., £18,014; rice, £16,981; hats and caps, £14,582; superphosphates, £10,482; oils, £24,839; silk piece-goods, £115,377; other piece-goods, £9,137; sulphur, brimstone, £14,515; timber, £15,519; wicker, bamboo, &c., £5,587.

Java.—Kapok, £36,159; sugar, £233,826; and tea, £45,988.

Sumatra.—Naptha, £17,031; benzine, &c., £18,197; and kerosene, &c., £20,933.

Philippine Islands.—Cigars, £23,160.

United States.—Apparel and attire, £58,983; arms, ammunition, and explosives, £38,423; books, &c., £18,629; boots and shoes, £47,590; clocks and watches, £15,730; cordage and twines, £13,764; drugs and chemicals, £10,513; fancy goods, £42,625; fish, £79,042; fruits, £16,602; furniture, £20,508; glass and glassware, £17,808; gums, £15,292; instruments, £141,281; iron and steel, £41,135; lamps and lampware, £13,289; piece-goods, £70,346; rails, &c., for railways, £22,614; rubber and rubber manufactures, £19,528; sausage casings, £27,887; soap, £24,024; stationery, £12,628; glucose, £12,260; timber, £397,493; tobacco, £285,503; vehicles, £78,557; tools of trade, £71,467; turpentine, £27,580; watches and clocks, £11,007; paraffin, £18,121; articles of wood, £28,785.

Chile.—Nitrate of soda, £7,161.

Brazil.—Cameos, precious stones, &c., £15,580.

Colombia.—Hats and caps, £4,418.

Ecuador.—Hats and caps, £5,802.

Cuba.—Cigars, £21,500.

South Sea Islands.—Copra, £206,454.

New Hebrides.—Copra, £14,212; maize, £5,076.

New Caledonia.—Copper ore, £6,220; rubber and rubber manufactures, £5,730; skins and hides, £15,020.

EXPORTS TO FOREIGN COUNTRIES.

The exports from New South Wales to the principal foreign countries were as appended:—

Country.	1870.	1880.	1890.	1900.	1910.
	£	£	£	£	£
Belgium .. .. .	...	...	1,011,846	620,349	2,970,187
France and New Caledonia	53,257	181,847	427,313	1,204,059	4,347,595
Germany .. .. .	...	...	404,280	844,495	4,924,474
Netherlands and Java	25,981	11,042	50,358	86,203	216,546
Italy .. .. .	...	...	24,498	61,132	234,419
Norway .. .. .	...	...	...	...	5
Sweden .. .. .	...	...	...	...	713
China	17,516	14,844	1,037	68,004	64,192
Japan	52	6,581	7,156	133,989	524,598
South Sea Islands	131,918	52,657	66,714	126,851	214,651
United States	38,817	172,648	1,300,375	3,981,242	865,326
Other Foreign Countries	35,349	32,869	169,988	470,809	1,263,259
Total	£ 302,890	472,488	3,463,565	7,597,133	15,635,965

Most of the exports were sent to Belgium, France, Germany, and the United States, these four countries taking about 83 per cent. of the total exports to all foreign countries. A classification of the chief articles of New South Wales produce exported to these countries is appended:—

Article.	Belgium.	France.	Germany.	United States.
	£	£	£	£
Coal ... .. .	...	...	3,490	111,112
Cocoonut Oil	4,427	...	22,236	119
Copper	318,834	119,647	167,354	7,008
Concentrates—Silver and silver-lead	100,479	...	16,295	...
Zinc	191,079	...	55,628	...
Sausage-casings	594	...	45,218	163
Scheelite ... .. .	...	7,955	7,792	...
Silver and silver-lead	12,168	...	73,558	301
Sheepskins with wool	40,655	250,746	5,702	4,152
Hides and other skins	63,848	31,093	157,731	210,423
Tin	19,035	...	7,801	69,118
Tallow	26,205	4,863	14,712	...
Timber	3,098	...	16,796	3,290
Wheat	55,837	90,356	32,001	...
Wolfram ore ... .. .	...	3,001	9,344	...
Wool	2,010,910	3,602,923	3,845,505	136,757

In consequence of the removal of the American duty there has been a great increase in the export of hides and skins to the United States since 1908. In addition to the articles shown above, gold bullion, valued at £42,451, was sent to the United States, and the following products of other Australian States were re-exported—silver in matte, £31,461; skins and hides, £25,516.

To Belgium, the other Australian produce re-exported included copper ingots, £8,100; silver and silver-lead ore, £27,141; zinc ore, £20,185; tin ingots, £18,432; and wool, £12,326.

To France, pig lead, £28,250; wolfram, £14,438; and wool, £59,789 were re-exported.

To Germany, copper ingots, £11,200; silver and silver-lead ore, £53,362; wolfram, £32,850; sausage casings, £6,855; skins and hides, £7,230; and wool, £266,924.

The exports of domestic produce to the Netherlands included butter, valued at £17,091; kerosene shale, £11,118; and zinc concentrates, £63,061.

Italy took New South Wales wool to the value of £123,444; skins and hides, £36,307; and tallow, £30,899. The re-exports included wool, £14,515; and skins and hides, £13,710.

There has been a considerable expansion in the trade with the East during the last decade. Japan has established a national line of steamers to foster the trade between that country and Australia.

The principal domestic products exported to Japan during 1910 were wheat, £37,666; wool, £260,776; wool tops, £106,253; and manures, £15,532; while pig-lead, £77,493 was re-exported.

The exports to China consisted mainly of pig-lead, £24,661, and copper ingots, £18,469, the produce of other Australian States, and New South Wales butter, £7,129.

The domestic produce exported to Java comprised coal, £47,856; and flour, £52,249. To the Philippine Islands, horses, £9,985; butter, £12,802; coal, £105,194; flour, £49,008; meats, £12,407; and timber, £11,400. To the Hawaiian Islands, ammonia sulphate, £10,241, and coal, £33,842. To the South Sea Islands, biscuits, £9,774; flour, £10,974; and meats, £6,474. Gold and silver specie, total value £44,917, was also sent to the South Sea Islands, and the following articles were re-exported:—Apparel and attire, £5,766; rice, £11,188; piece-goods, £15,464; and tobacco, £12,063. To New Caledonia, flour, £28,601, was sent, and there was a re-export of sugar, £8,103. The articles of domestic produce exported to other foreign countries were as follows:—Coal, to Chile and Mexico, £303,627 and £11,111, respectively; to Peru, coal, £22,989, and wheat, £18,325; to Canary Islands, wheat, £372,458; and to Portuguese East Africa, preserved meat, £16,911.

TRADE DESCRIPTIONS.

Regulations are in force under the Commonwealth Commerce (Trade Descriptions) Act, 1905, to prohibit the importation of the following goods unless there is applied to such goods a trade description:—

Articles used for food or drink by man, or used in the manufacture or preparation of articles used for food or drink by man.

Medicines or medicinal preparations for internal or external use.

Manures.

Apparel (including boots and shoes), and the materials from which apparel is manufactured.

Jewellery.

Agricultural seeds and plants.

With regard to exports the undermentioned goods are prohibited from being exported unless there is a trade description applying to such goods:—

Butter.	Milk—
Cheese.	Concentrated.
Fruit.	Condensed.
„ preserved (including dried).	Condensed skimmed.
Honey.	Dried.
Jam.	Plants.
Leather.	Potatoes.
Maize.	Rabbits and hares.
Margarine.	Seeds.
Meat—	
Canned.	
Extract or essence.	
Other (except rabbits and hares).	

A high standard of the quality of exports is necessarily assured by the enforcement of the Regulations.

Goods are inspected and examined and in certain cases a declaration by the exporter must also accompany the notice of intention to export.

Approved goods for export are marked with an official stamp, and butter and cheese are also graded, whilst carcase meat, rabbits, and hares, are classified and marked.

INSPECTION OF MEAT FOR EXPORT.

Special instructions regarding the supervision and inspection of meat for export were given during the year to meat Inspectors, and standard requirements were set for abattoirs and premises where meat is preserved (corned or canned) for export.

It may be stated that there are now employed in the frozen meat trade between Australia and the United Kingdom and European Countries at least 52 steamers with a carrying capacity aggregating 2,264,000 carcasses. All these vessels visit the State of New South Wales.

RATES OF FREIGHTS.

On account of the great distances from foreign trading centres, freight is a large item in the cost of placing the surplus products of the State on the oversea markets. The rates are subject to great fluctuation and show considerable increases during the last quinquennium. The following statement gives the rates per steamer from Sydney to London during the last two years as compared with 1905, and shows that the increases have affected all the principal articles of export:—

Article.				1905.	1909.	1910.
Wool greasy	...	...	lb.	$\frac{1}{2}$ d. to $\frac{3}{4}$ d.	$\frac{1}{2}$ d. to $\frac{3}{4}$ d.	$\frac{1}{2}$ d. to $\frac{5}{8}$ d.
Wheat	...	...	ton	16/3 to 23/9	10/- to 25/-	15/- to 25/-
Frozen meat	...	...	lb.	$\frac{1}{2}$ d.	$\frac{1}{2}$ d. to $\frac{3}{4}$ d.	$\frac{1}{2}$ d. to $\frac{5}{8}$ d.
Preserved meat	...	...	40 cub. ft.	22/6 to 25/-	25/- to 27/6	25/- to 27/6
Rabbits	...	...	...	25/- to 40/-	25/- to 45/-	20/- to 45/-
Butter	...	...	56 lb.	1/9 to 1/10	2/- to 2/6	2/- to 2/6
Tallow	...	...	ton	22/6 to 35/-	35/- to 40/-	35/- to 40/-
Leather	...	...	...	25/- to 40/-	50/- to 55/-	55/- to 60/-
Hides	...	...	...	27/6 to 32/6	30/- to 37/6	35/- to 40/-
Timber	...	...	100 sup. ft.	4/- to 5/-	5/-	5/-
Copra	...	...	ton	20/- to 37/6	35/- to 40/-	35/- to 40/-
Measurement goods	...	...	40 cub. ft.	25/- to 45/-	25/- to 45/-	20/- to 45/-

During 1910 the rates remained firm throughout and on account of the bounteous seasons the supply of cargo was ample to fill the space available. Cargo is carried by sailing vessels at a cheaper rate, but this class of carrier is being rapidly replaced by large modern steamers specially designed for the Australian trade.

CUSTOMS AND EXCISE REVENUE.

On the 1st January, 1901, the Department of Customs and Excise was transferred to the control of the Commonwealth. Previously it had been administered by the State. On the 8th October, 1901, the first uniform Federal tariff was introduced in the Federal Parliament, and thereupon the State tariff ceased to have effect. On 8th August, 1907, a new tariff was introduced, which superseded that of 1901, and duties were altered, in many cases being increased considerably. The duties of Customs and Excise are now collected under the Customs Act, 1901-10 (No. 36 of 1910), and the Customs Tariff, 1908-1910 (Act No. 39 of 1910), and the Excise Tariff (No. 8 of 1908), and the Excise Tariff (Starch) Act No. 14 of 1908, and the Excise (Sugar) Act No. 17 of 1910.

The following statement shows the gross amounts collected in New South Wales under each division of the tariff during 1910, and also shows the drawbacks, refunds, and the net revenue:—

Division.	Article.	Gross Collections.	Draw-backs Paid.	Refunds.	Net Revenue.
		£	£	£	£
I.	Ale, Spirits, and Beverages	1,036,923	32	242	1,036,649
II.	Tobacco and Manufactures thereof	544,982		74,564	470,418
III.	Sugar	189,028	1,716	50	187,262
IV.	Agricultural Products and Groceries	354,670	8,533	1,072	345,065
V.	Textiles, Felts, and Furs, and Manufactures thereof, and Attire	798,134	11,568	2,270	784,296
VI.	Metals and Machinery	420,428	9,120	3,433	407,870
VII.	Oils, Paints, and Varnishes	93,865	3,564	331	89,970
VIII.	Earthenware, Cement, China, Glass, and Stone	111,153	1,386	508	109,259
IX.	Drugs and Chemicals	41,390	1,813	85	39,492
X.	Wood, Wicker, and Cane	141,448	1,998	1,126	138,324
XI.	Jewellery and Fancy Goods	115,369	3,561	390	111,418
XII.	Leather and Rubber	102,106	3,431	383	98,292
XIII.	Paper and Stationery	75,628	1,411	696	73,521
XIV.	Vehicles	56,581	260	243	56,078
XV.	Musical Instruments	44,710	541	80	44,089
XVI.	Miscellaneous	95,668	2,578	689	92,401
	Total, Customs Duties	£ 4,222,078	51,512	86,162	4,084,404
	Excise—				
	Beer, viz. :—Ale, Porter, and other Beer	201,391	178		201,213
	Spirits	108,098	62	81	107,955
	Starch	1,252	6		1,246
	Sugar	172,573	75	3	172,495
	Tobacco	184,752	2	3	184,747
	Cigars		940		940
	Cigarettes	230,616			230,616
	Snuff				
	Total, Excise Duties	£ 899,622	323	87	899,212
	Total, Customs and Excise Duties	£ 5,121,700	51,835	86,249	4,983,616
	Miscellaneous Receipts—				
	Customs	13,761		295	13,466
	Excise	2,333		23	2,310
	Grand Total	£ 5,137,794	51,835	86,567	4,999,392

Nearly half the revenue is obtained from the duties, customs and excise, on stimulants and narcotics. Of the other divisions, textiles, &c., contribute the largest amount, and then come the divisions comprising metals and machinery, and agricultural products and groceries.

The amount collected in New South Wales from customs and excise, and the proportion per head of population during the last fourteen years, have been as follows. A tariff on a freetrade basis was in force in the State in the year 1896, and continued in existence until October, 1901, when the first Commonwealth tariff was imposed:—

Year.	Net Amount collected from Customs and Excise.	Per Head of Population.	Year.	Net Amount collected from Customs and Excise.	Per Head of Population.
	£	£ s. d.		£	£ s. d.
1896	1,637,078	1 5 9	1904	3,094,608	2 3 0
1897	1,520,116	1 3 7	1905	3,112,368	2 2 5
1898	1,551,827	1 3 8	1906	3,352,444	2 4 8
1899	1,660,333	1 4 11	1907	4,170,046	2 14 3
1900	1,778,993	1 6 3	1908	4,273,417	2 14 7
1901	2,475,729	1 16 3	1909	4,388,624	2 15 2
1902	3,116,052	2 4 9	1910	4,999,392	3 1 8
1903	3,384,458	2 7 10			

Under the Federal tariff the contributions to Customs and Excise per head of population have more than doubled.

The following statement shows the quantity of spirits, beer, and tobacco on which excise duty was paid in New South Wales during 1910:—

Article.	Rate of Duty.	Quantity on which Excise Duty was Paid.
	Per proof gall.	Gal.
Spirits—		
Brandy (pure Australian standard brandy)...	10s.	41,762
Brandy (blended wine brandy, &c.) ...	11s.	5,351
Brandy (spirit, n.e.i.) ...	13s.	...
Gin (distilled from barley, malt, grain, or grape wine) ...	12s.	1,190
Gin (spirits, n.e.i.) ...	13s.	...
Whisky (Australian standard malt whisky) ...	10s.	10,504
Whisky (Australian blended whisky) ...	12s.	323
Whisky (spirits, n.e.i.) ...	13s.	...
Rum (Australian standard rum) ...	12s.	57,593
Rum (spirits, n.e.i.) ...	13s.	21,352
Spirits, n.e.i. ...	13s.	22,372
Spirits for industrial or scientific purposes...	13s.	21,842
Spirits for the manufacture of scents, &c. ...	10s.	...
Spirits for fortifying wine or making vinegar ...	6d.	38,040
Total, spirits ...		220,329
	Per gal.	
Beer, n.e.i. ...	3d.	15,775,120
Beer, brewed from malt and hops ...	2d.	482,520
Total, beer ...		16,257,640
	Per lb.	lb.
Tobacco—Manufactured, n.e.i. ...	1s.	3,626,040
Tobacco—Hand-made ...	9d.	92,000
Total, tobacco ...		3,718,040
Cigars—Machine-made ...	9d.	...
Cigars—Hand-made ...	3d.	75,120
Total, cigars ...		75,120
Cigarettes ...	3s.	1,500,000
Cigarettes—Hand-made ...	2s. 9d.	40,844
Total, cigarettes ...		1,540,844
Snuff ...	2s.	...

COMMERCIAL COMMISSIONER IN THE EAST.

Mr. J. B. Suttor, A.M.I.C.E., represents the State of New South Wales as Commercial Commissioner in the East, with headquarters at Kobe, Japan. The Commissioner, who is responsible for the fostering of the trade of the State in the important markets of eastern countries, makes periodical tours of Japan, China, India, Philippine Islands, the Dutch East Indies, and other portions of the East, closely watching for new opportunities for trade for this State as well as taking steps to ensure the maintenance of the existing trade.

Annual reports, giving in much detail the market prices, &c., for each commodity exported from New South Wales and valuable advice to shippers and the commercial community, are furnished by the Commissioner.

These reports are published as Bulletins by the Immigration and Tourist Bureau, and may be obtained upon application.

In addition to the valuable assistance given to commerce the Commissioner does useful work in diverting the stream of tourists in the East towards Australia.

CHAMBERS OF COMMERCE.

There are a number of Chambers of Commerce in New South Wales, the principal being at Sydney and Newcastle. Others have been formed at Lismore, Grafton, and other important trading centres. The membership of the Sydney Chamber of Commerce as at June, 1911, was 431, including 28 firms. Amongst the matters relating to the commercial interests of the State which the Sydney Chamber endeavoured to advance during 1910-11, may be mentioned the inspection of frozen meat prior to export, the improvement of the post, telegraph, and telephone services, the extension of wharfage and shipping facilities in Sydney Harbour, and the establishment of a Faculty of Commerce within the Sydney University. The Sydney Chamber also fixes the F.A.Q. standard for wheat in each year.

The seventh congress of the Chambers of Commerce of the British Empire was held in Sydney in September, 1909, and delegates from New South Wales will attend the eighth Congress to be held in London in 1912.

EMPLOYMENT AND ARBITRATION.

POPULATION AND THE LABOUR FORCE.

In previous issues of this portion of the Year Book, full details have been given as to the distribution of population according to occupation, as ascertained at the census dates; and in view of the fact that the results, as applied to New South Wales, of the census taken throughout the British Empire on 3rd April, 1911, are becoming available, repetition in detail of the earlier census figures is unnecessary, more especially as those figures can be obtained readily by reference to earlier issues of this Year Book.

At the 1901 census, occupations were classified, under the general heading of breadwinners, in seven groups; dependents, or non-wage-earners, were grouped separately. Of the total population of 1,354,846 recorded for New South Wales at that census, breadwinners numbered 564,799; dependents, 787,798; and persons not elsewhere included, 2,249. The class of dependents, of course, includes married women and other persons engaged in services for which no money wage is paid, *e.g.*, in domestic duties.

CHANGING RATIOS IN GROUPS.

In the history of a young community in process of development a ten-year period represents, relatively to more stable communities, an epoch marked by considerable changes, and it is natural to expect the recorded figures to reflect these variations between the periods. But, taking the two groups of breadwinners and dependents, and excluding the comparatively small class of those whose occupations were not recorded, the proportion in each class per cent. of the total population at the respective census dates since 1861 has been remarkably constant, *viz.* :—

Census Years.	Breadwinners.			Dependents.		
	Males.	Females.	Total.	Males.	Females.	Total.
1861	67.58	19.07	46.46	32.42	80.93	53.54
1871	63.19	16.01	41.67	36.81	83.99	58.33
1881	64.37	16.29	42.61	35.63	83.71	57.39
1891	63.13	17.36	42.09	36.87	82.64	57.91
1901	63.75	17.59	41.76	36.25	82.41	58.24

The relatively high proportion of breadwinners in 1861 may be taken as a reflex of local conditions in a preponderance of able-bodied adults resulting from the opening up of the gold-fields and the consequent influx of immigrants. Thereafter no abnormal changes occurred in the distribution of population; but following the present trend of progression, it seems highly probable that the figures for 1911 will show a decided variation in the ratio of breadwinners to dependents, tending to a large increase in the percentage of women and girls to be classed as breadwinners instead of dependents.

FLUCTUATIONS IN TYPES OF OCCUPATIONS.

Apart from variations in group classification, as noted above, there have been considerable fluctuations in the types of occupations in which breadwinners have been engaged, *e.g.*:—

Occupation.	Proportion per 1,000 Breadwinners (males).	
	1891.	1901.
Agricultural pursuits	174	163
Mining pursuits	81	85
Pastoral pursuits	71	69
Food, drink, &c., dealing and making	53	69
Art and mechanic productions, dealing in	60	58
Building trades	62	52
Domestic attendance and supply of board and lodging	46	44
Textiles and fabrics, dealing and making	33	36
Dairying pursuits	13	35
Metal and mineral working	31	34
Finance and property, dealing	19	20
All other occupations	357	330
Totals	1,000	1,000

Naturally, with the rapid progress, during the past decade, of manufactures and allied industries which mark an advancing stage of industrial development, further and decided variations are to be expected at the present time.

PRIMARY AND SECONDARY INDUSTRIES.

A statement is shown below of the persons permanently employed in the principal industries of the State since 1901. In regard to women and girls engaged in agriculture and dairying, it must be remembered that the great majority—probably about 60 per cent.—are only partly so employed, in conjunction with or in addition to, their usual domestic duties. In the manufacturing industry, employees in establishments where no machinery is used are excluded, unless at least four persons are engaged.

Year.	Agricultural.		Dairying.		Pastoral.	Mining.		Manufacturing.	
	Males.	Females.	Males.	Females.		Metal.	Coal and Shale.	Males.	Females.
						Males.	Males.		
1901	60,813	4,798	14,865	14,315	28,118	24,200	12,415	54,556	11,674
1902	61,057	5,261	13,293	11,148	27,862	20,581	13,114	54,326	11,943
1903	65,213	5,948	15,208	12,331	26,051	23,442	14,117	52,453	13,180
1904	63,111	5,742	17,641	13,750	27,886	23,691	14,146	53,457	14,579
1905	62,419	5,608	19,287	14,209	29,919	24,795	14,137	56,111	16,064
1906	63,448	5,715	21,476	15,626	32,598	27,347	15,199	59,979	17,843
1907	57,327	5,385	22,374	15,424	40,405	26,402	17,356	65,953	20,514
1908	55,324	5,409	24,887	16,908	39,625	20,881	18,084	67,616	21,482
1909	59,541	4,770	25,514	17,803	38,714	17,836	18,569	69,184	22,518
1910	59,091	5,239	27,449	19,393	40,003	19,369	18,044	75,419	24,327

There has been during the ten-year period a steady increase in the labour permanently employed in all the principal industries, with the exception of agriculture and metal mining.

The retrogression in agricultural labour is probably more apparent than real, production having increased considerably; but as, in many cases, agriculture is associated with other rural occupations, persons may be returned as engaged in farming in one year, and in other rural pursuits in another year.

A noticeable feature of the table is the rapidly-increasing extent to which women and girls are employed in factories, the numbers being more than doubled between 1901 and 1910; while the increase in the numbers of men and boys employed also was maintained steadily, though it is very evident that the two rates of progression are not comparable. The decline in the number of metal-miners since 1906 is a true reflex of the effect of low prices current for metals. Employees in pastoral industries increased rapidly in number until 1907; but the figures for 1910, though showing a recovery from the depression of 1908 and 1909, are still slightly below the record of the earlier year. This decrease has, however, been counteracted by the increase in other rural occupations, notably in dairying.

Grouping the figures shown above as Primary and Secondary Industries, the following figures are obtained:—

Year.	Primary.					Secondary	Primary and Secondary.	
	Rural.		Mining.	Total.		Manufac- turing.		
	M	F.	M.	M.	F.	Total.	M.	F.
1901	103,796	19,113	36,615	140,411	19,113	66,230	194,967	30,787
1902	102,212	16,409	33,695	135,907	16,409	66,269	190,233	28,352
1903	106,472	18,279	37,559	144,031	18,279	65,633	196,484	31,459
1904	108,638	19,492	37,837	146,475	19,492	68,036	199,932	34,071
1905	111,625	19,817	38,932	150,557	19,817	72,175	206,668	35,881
1906	117,522	21,341	42,546	160,068	21,341	77,822	220,047	39,184
1907	120,106	20,809	43,758	163,864	20,809	86,467	229,817	41,323
1908	119,836	22,317	38,965	158,801	22,317	89,098	226,417	43,799
1909	123,769	22,573	36,405	160,174	22,573	91,702	229,358	45,081
1910	126,543	24,632	37,413	163,956	24,632	99,746	239,375	48,959

Reviewing the proportional increases under each head as between 1901 and 1910, the advance made, particularly in the female sections, of the manufacturing or secondary group shows out most noticeably; taking the numbers at 1901 as a base, representing 100 in each case, following are the figures marking the relative positions at 1910, viz.:—

	M.	F.	Total.
Primary—Rural	121·9	123·9	123·0
Mining	102·2	...	102·2
Total	116·8	123·9	118·4
Secondary—Manufacturing ...	138·2	208·2	150·6
All Industries	122·8	159·0	127·7

Contrasting Primary and Secondary Industries, it is noticeable that in the ten-year period the Primary Industries experienced two periods of regression, i.e., in 1902 and in 1908-9, when the numbers employed showed considerable decreases as compared with the figures for the year immediately preceding. In the first case, viz., in 1902, the restriction upon the primary industries, due to seasonal influences, was reflected promptly in the secondary industries, in which a corresponding shrinkage of the labour force was apparent in 1903, the shrinkage being confined to the male section, however. The regression in the primary industries in 1908 and 1909 did not reflect in the secondary group, which in that period maintained its steady advance in both male and female sections.

WAGES.

From 1880 to 1887 was, perhaps, the brightest period in the State from the industrial standpoint, as, except in the five years, 1853-57, wages were never so high, nor was the purchasing power of money ever so great. Between 1887 and 1891 there was little variation in the nominal rate of wages in skilled trades, though for unskilled labour the rates experienced a decided decline. In 1893 there was a heavy fall generally, wages, as compared with the previous year, dropping 10 per cent. for mechanics, and, of course, still more for unskilled labourers; and the second half of that year marked the beginning of a new industrial period, under vastly changed conditions; during 1894 employment became further restricted, and through 1895 the decline continued; the wage-rate of that year for skilled workmen being 22 per cent., and for unskilled labourers about 17½ per cent., below the rates of 1892. During 1896 wages in several trades improved, and there have subsequently been steady advances and regular employment. In 1898, 1899, and 1900, employment in the building trades was plentiful, and the wages of masons and bricklayers, and in allied trades, recovered, rising to the level of 1889. During the period of depression there was a stoppage of nearly all forms of speculative activity; on the other hand, there was a marked extension of agriculture and mining.

The inauguration of the Commonwealth of Australia in 1901 gave a decided impetus to developmental work, and thus led to increased production. At the close of the same year an Industrial Arbitration Act was passed by the State Parliament; and the operation of this Act, with the succeeding legislation in the direction of adjustment of wages and conditions of work, has materially assisted to improve the status of the workers.

WAGES IN THE PRINCIPAL INDUSTRIES.

Adhering to the general classification of the principal industries as (a) rural, viz., agriculture, dairying and pastoral, (b) mining, (c) manufacturing, a comparison of wages paid in typical branches of such industries at intervals in the past fifteen years reveals some interesting facts.

The following statement indicates the range of wages paid, in addition to board and lodging, for various classes of rural work:—

Trade or Calling.		1895.			1900.			1905.			1909.			1910.		
		s.	d.	s.	s.	d.	s.	s.	d.	s.	d.	s.	d.	s.	d.	s.
Boundary riders ...	per week	15	0	to 20	16	3	20	0	20	0	to 22	6	20	0	to 25	
Bush carpenters ...	"	15	0	" 30	21	3	25	0	25	0	" 30	0	25	0	" 30	
Cooks—Station ...	"	20	0	" 40	21	3	20	0	22	6	" 27	6	22	6	" 30	
Farm labourers ...	"	10	0	" 15	16	3	20	0	20	0	" 25	0	20	0	" 25	
Milkers ...	"	10	0	" 18	15	0	16	3	20	0	" 22	6	20	0	" 25	
Shearers, no rations	per 100	17	6	" 20	18	9	20	0	24	0			24	0		
Married Couples ...	per annum	£50 to 80			£70 to 75			£70 to 80			£90 to 110			£90 to 120		
Stockmen...	"	50,, 70			58,, 100			52			52,, 65			52,, 65		
Vignerons...	"	60,, 70			37 10s			39			39,, 52			52,, 55		

In the above table, average wages, as deduced from the data available, have, in 1900 and 1905, to be compared with the range of wages in other years, and it is therefore possible to review the figures only on very broad lines. The outstanding feature of the comparison is that the general level of wages has been raised in almost every case, any exceptions being traceable to the exigencies of a particular season. Thus, for farm labourers, the wage has risen from the range of 10s.-15s. per week in 1895, to the range of 20s.-25s. per week of 1909 and 1910. Similar variations of the wage-level

followed for other branches of rural work, in which class, it must be remembered, are embraced the trades hitherto least organised, and necessarily, least capable of being organised, both on account of the inherent difficulties of seasonal occupations and of the character of the work, which does not generally call for technical training.

In the mining group, the figures show a change of rates over the 15 years, 1895-1910, which is not, however, nearly so marked as in the rural industries, for the reason that more skilled workers and better organisation prevail in the mining group.

Trade or Calling.	1895.		1900.		1905.		1909.		1910.	
Coal-mining—	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Miners ... per ton	2 0	2 11	1 10	3 2	1 9½	3 0	2 0½	4 2	2 0½	4 2
Wheelers... per day	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Screenmen ..	6 6	8 3	6 6	7 6	6 6	7 6	6 9	8 3	7 0	9 6
Engine-drivers ..	7 6	10 0	11 0	12 6	11 0	12 6	8 9	13 0	8 9	13 0
Labourers... ..	5 6	8 6	6 6	7 6	6 6	7 6	6 9	7 9	7 0	8 0
Metal-mining—	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Miners	9 0	9 0	9 0	9 0	9 0	9 0	10 0	10 0	11 0	11 0
Truckers	7 6	7 6	7 6	7 6	7 6	7 6	8 7½	8 7½	9 6	9 6
Engine-drivers ..	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Labourers	9 0	10 0	9 0	10 0	9 0	10 0	10 0	11 0	11 0	12 0
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
	7 6	7 6	7 6	7 6	7 6	7 6	8 7½	8 7½	9 6	9 6

In the manufacturing industry, comparison becomes more difficult, with the increasing variety and complexity of the work, and the rapid development of the past ten years, accompanied, as it has been, by the extension of wages board awards to so many branches. The following may be taken as typical of different branches of this class of work, it being, of course, understood that the figures here, as in the previous tables, apply to adult workers:—

Trade or Calling.	Average Rates.				Minimum Award Rates.
	1895.		1900.		1910.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Bakers... .. per week	1 5 0	2 15 0	2 11 9	2 13 3	2 12 6
Confectioners... ..	1 10 0	2 10 0	2 6 3	2 15 6	2 17 1
Millers	3 0 0	3 10 0	2 7 6	2 12 6	2 14 6
Boot-clickers	1 10 0	3 0 0	1 14 3	2 3 6	2 9 4
Tailors (slop)	2 0 0	2 10 0	2 3 3	2 19 0	3 0 3
Tailoresses (slop) ..	0 10 0	1 15 0	0 18 3	1 2 4	1 3 1
Picture-frame makers (joiners)	1 7 6	2 12 0	2 0 3	2 8 9	2 3 1
Bookbinders	2 12 0	3 5 0	2 9 6	2 11 4	2 16 1

To make these comparisons more complete and representative of the whole circle of industrial activity, figures relating to various branches of the building and allied trades and to domestic service, are given for the same periods. For domestic service the rates current in October, 1911, are also quoted. In connection with this class of service, the question of a

rising wage is a question primarily of supply and demand for such labour, which has not hitherto been subject to regulation by award.

Trade or Calling.	1895.	1900.	1905.	1909.	1910.	1911.
<i>Males, per day, without board and lodging.</i>						
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Carpenters	8 0	9 6	9 4	10 0	11 0	11 0
Bricklayers	8 6	11 0	11 0	11 0	12 0	12 0
Masons	7 8	11 0	11 0	11 0	12 0	12 0
Plasterers	7 0	9 6	10 0	10 0	11 0	11 0
Painters	7 0	9 0	9 4	10 0	10 0	10 0
Boilermakers	8 0	10 3	10 3	10 4	10 4	11 0
Labourers and navvies ...	6 0	6 10	7 0	7 0	8 0	8 0
<i>Females, per week, with board and lodging.</i>						
	s. d.	s. d.	s. d.	s. s.	s. s.	s. s. d.
Housemaids	10 0	11 3	12 0	14 to 16	14 to 16	14 to 17 6
Laundresses	14 0	18 9	18 0	17 „ 20	20 „ 25	20 „ 25 0
Nursemaids	7 6	7 0	10 0	10 „ 12	10 „ 12	10 „ 12 0
General servants	11 6	11 0	15 0	10 „ 20	10 „ 20	12 „ 20 0
Cooks	14 0	20 0	17 0	15 „ 25	17 „ 25	15 „ 30 0

It is noticeable that the rate of wage progression in the different industries has been very uneven; and a detailed study of the whole question would probably yield valuable results. But in reviewing the figures quoted in all the tables above, particular stress must be given to the fact that they are taken only as representative of adult workers in skilled or unskilled trades, and no special deductions can be made from them in the absence of figures to show the extent and effect of factors such as juvenile or slow workers. Further, in discussing the extent of the admitted increase in wages generally, it must be remembered that wages are relative; and, turning to the question of food and prices, as evidencing the spending power of money, it will be found that the increase of wages very largely corresponds to the generally increased cost of living. The relative force of the two increases and the distinction of cause and effect are, however, not ascertainable from the data available.

RULING RATES OF WAGES IN QUEENSLAND.

Following is a statement of the ruling range of wages for adult workers as recorded during 1910 in Queensland, in which State industrial development most closely approximates to the conditions in New South Wales:—

Dairy hands... ..	15s. to 25s.	per week and found.
Ploughmen	20s. „ 27s. 6d.	„ „
Married couples	£75 „ £100	per annum „
Farm labourers	15s. „ 25s.	per week „
Cane cutters	5s. „ 6s.	per day „
Bricklayers	11s. „ 20s.	„ „
Carpenters and joiners	9s. „ 15s.	„ „
Painters	7s. 6d. „ 12s.	„ „
Plasterers	9s. „ 20s.	„ „

A comparison with the rates previously quoted as current for similar labour in New South Wales reveals that the maximum rates quoted for the branches of the building trades are in advance of the New South Wales rates; for rural workers, the ranges in the two States are practically coincident.

REGULATION OF WAGES.

Regulation of wages by specific legislation is practically confined to the Minimum Wage Act, 1908, noted hereunder. Other legislation touching the matter of wages has relation to methods and conditions of work rather than

to rates of payment, excepting, of course, the more recent legislation in regard to industrial arbitration and industrial disputes, where the assessment of equitable wages has been an important part of the function of the Acts.

MINIMUM WAGE.

The Minimum Wage Act provides that the minimum wage shall be not less than 4s. per week in respect of any person employed in preparing or manufacturing any article for trade or sale, or in any factory under the "Factories and Shops Act," or working at any handicraft; or any shop-assistant as defined by the Early Closing Act.

The Act does not apply where all the persons employed as workmen and shop-assistants are members of the employers' family, related in the first or second degree by blood or first degree by marriage to the employer.

Overtime for the workman is any time worked beyond forty-eight hours per week, or after 6 o'clock in the evening, or for a shop-assistant after half an hour after the closing time of the shop.

When any boy under 16 years of age, or any girl or woman is employed overtime after 6 o'clock in the evening, a sum, not less than 6d., must be paid as tea money on the day such overtime is worked.

An amount not less than 3d. per hour, or portion of an hour, must be paid for overtime to any boy under 16 years of age, or any girl or woman; the full rate of time and a half, however, is to be paid in cases where, under the Factories and Shops Act, the overtime pay would exceed 3d. per hour.

Every employer must keep a record of overtime worked by such of his workmen or shop-assistants (boys under 16 years of age, and all girls and women), and must produce such record and furnish extracts therefrom to inspectors appointed under this Act.

No person may pay or give or receive any consideration, premium, or bonus for the employing by him of any woman or girl on the manufacture of any article of clothing or wearing apparel.

Contraventions or breaches of the Act, or of the regulations, are reported to the Minister for Labour and Industry by inspectors, and proceedings may be instituted with the authority of the Minister. During the year 1910 twenty-six informations were laid under this Act; eleven cases resulted in convictions, seven were withdrawn on payment of costs; seven were withdrawn in view of other convictions against the particular employers, and one case only was dismissed.

'OPERATIONS OF THE ACT.

The Minimum Wage Act is in operation over the whole State, and the Factories and Shops Act in certain districts.

The provisions of the Minimum Wage Act are observed carefully throughout those districts covered by the operations of the Factories and Shops Act, though in many large country towns outside these districts and not ordinarily included in the inspector's itinerary, infringements may occur, particularly in dressmaking and millinery establishments; but these breaches are due perhaps mainly to ignorance. Overtime has been classified in the Act under two heads, viz., by the week of forty-eight hours, and also, on any working day, after 6 p.m., when tea money is payable. Many clothing factories complete the week's work in five days, and all work done on Saturday is actually overtime in terms both of the Factories and Shops Act and of the Minimum Wage Act. A case being submitted it was held, on appeal to the High Court, that tea money is payable only in the instance when work is done on any day after 6 p.m.

One effect of this Act has been to destroy systems of night-work for women, carried on really in violation of the international agreement entered into by Great Britain.

INDUSTRIAL ACCIDENTS AND DISEASE.

In part "Vital Statistics" of this Year Book, deaths due to accident or negligence are discussed. During 1910, 918 fatal accidents occurred, viz., 721 of males, and 197 of females, the general accident rate being 5.5 per 10,000, as compared with a general mortality rate of 97.1 per 10,000. Of the fatalities, 1,570 in every 10,000 were due to burns and scalds, 1,520 to drowning, 1,440 to vehicles and horses, 820 to falls, 740 to railways and tramways, 520 to mines and quarries, and 510 to weather agencies. Records are not available to show what proportion of these fatalities may be classed immediately as industrial accidents; but in regard to the largest declared factory districts, viz., Metropolitan and Newcastle, accidents, fatal or otherwise, are reported from year to year, the responsibility lying with the factory inspectors of seeing that all dangerous portions of machinery are properly and securely fenced and guarded. Following are the recorded accidents for the past three years:—

	1908.		1909.		1910.	
	Fatal.	Non-fatal.	Fatal.	Non-fatal.	Fatal.	Non-fatal.
Metropolitan District	4	348	2	386	1	405
Newcastle "	1	44	2	35	1	26
Total	5	392	4	421	2	431

The non-fatal accidents may be further classified as resulting in permanent or partial disablement, or merely temporary incapacitation, viz.:—

	1908.	1909.	1910.
Permanent disablement	5	6	2
Partial "	95	60	86
Temporary incapacitation	292	355	343
Total	392	421	431

These figures represent only a partial statement of the case against industry as the immediate cause of fatalities and mishaps; a truer presentation of the case might be seen if the accident rate could be derived by referring the total accidents to the number of persons exposed to risk.

The following table shows in comparative form for each district the mishaps which occurred in each of the three years, viz.:—

		Fatal Accidents.	Non-fatal Accidents.			
			Disablement.		Temporary Incapacita- tion.	Total.
			Permanent.	Partial.		
Metropolitan District ...	{ 1908	4	5	82	261	348
	{ 1909	2	5	53	328	386
	{ 1910	1	1	83	321	405
Newcastle District ...	{ 1908	1	...	13	31	44
	{ 1909	2	1	7	27	35
	{ 1910	1	1	3	22	26
Total		11	13	241	990	1,244

ACCIDENT RATE PER 10,000 EMPLOYEES.

Relating the accidents as reported to the mean of the number of employees recorded for each year, the rates are as shown in the following statement:—

		Mean No. of Employees.	Fatal Accidents.	Non-fatal Accidents.		
				Disablement.		Temporary Incapacitation.
				Permanent.	Partial.	
Metropolitan District ...	1908	60,307	663	829	13,597	43,297
	1909	64,332	311	777	8,238	50,985
	1910	68,678	146	146	12,085	46,740
Newcastle District ...	1908	5,406	1,850	.....	24,047	57,344
	1909	5,056	3,955	1,978	13,844	53,397
	1910	4,918	2,034	2,034	6,101	44,738
Total		208,697	527	823	11,548	47,437

On the figures shown above, temporary incapacitation is the result of approximately 80 per cent. of the accidents; and it is unfortunate that records are not available to show the time lost through these mishaps. The remaining 20 per cent. of accidents results in death, or disablement which, whether permanent or partial, means the practical removal of the disabled person from the ranks of the labour force.

If comparison be made of the extent of the serious accidents (fatalities and disablements) in factories for 1910, it will be seen that Newcastle was well below the average of both districts for the three years. In the Metropolitan district for 1910, the rate was fairly close to the average, thus:—

		Serious Accident Rate per 10,000 Employees.	
		Metropolitan.	Newcastle.
1908		15.089	25.897
1909		9.326	19.777
1910		12.377	10.169
1908-1910		12.698	

In the chapter dealing with the mining industry, full particulars are given of the fatalities and accidents occurring in this industry, which is generally quoted as the typical hazardous occupation. On the average annual number of fatalities by the latest actuarial investigation a mortality rate is disclosed of 11.8 per 10,000 employees for New South Wales.

It is regrettable that accident figures for other industries are not procurable, *e.g.*, in connection with shipping and wharves, where also there is a considerable liability to accidents.

A noticeable provision is contained in the Factories and Shops Act, as re-enacted in Victoria in 1911, *viz.*, that an ambulance chest must be provided in every factory or shop in which machinery is worked by motive power. This clause was inserted as the first step in a policy of minimising the risks and effects of accidents for which employees can recover no compensation, except in case of negligence of the employer.

INDUSTRIAL DISEASES.

As regards industrial diseases, no reliable records are available; but certain avocations are, with good reason, regarded as unhealthful; *e.g.*, rock-chopping and sewer-mining, insulating work involving handling of charcoal, and, notably, manufactures in which industrial poisons are employed, as in the manufacture of metals, lead colours, and electric accumulators, in the pottery, painting, gem-polishing, file-cutting, and similar industries.

In this connection it may be of interest to summarise the latest report (1910) of the International Association for Labour Legislation regarding the nature of industrial poisons, the method of their entry into the system, the extent of danger, and measures for combating such poisons.

Nature of Industrial Poisons.—Industrial poisons include those substances which in their production, their use, or, to a less extent, occurring as by or intermediate products, endanger by chemical processes the working capacity of the labourer, the deleterious effect arising from chemical reaction with the compounds or elements of the body.

Methods of Entry.—(1.) Through the mouth and digestive system. (2.) By the respiratory system. (3.) By the skin.

Extent of Danger.—Complete statistics are lacking for every country both as regards the handicap to industry and the impairment of the worker's efficiency and the extent to which sickness insurance funds are affected by the frequency of industrial poisoning. This failure of facts and figures is attributed in a large degree to lack of toxicological knowledge as much as to lack of leisure to investigate the specific nature of employment of patients presenting themselves to physicians or in hospitals. And it is beyond question that the necessary information can be secured only by means of a legal obligation placed upon medical authorities.

Methods of Combating Industrial Poisons.—Preventive measures largely rest with factory owners and managers because of their responsibility for provision of proper technical arrangements for removal of gases, vapours, dust, &c., and for effective protection in the form of washing facilities, respirators, helmets, and gloves.

List of Industrial Poisons.—A comprehensive list of industrial poisons has been prepared, and is quoted *in extenso* in Bulletin No. 86 of the Department of Commerce and Labour of the United States of America.

In the majority of unhealthful trades there are frequent compensating advantages in the way of short hours and high wages; but in New South Wales these points are regulated rather by the ratio of supply and demand in the labour market than by statute or award based upon a full appreciation of the element of risk.

Yet, in the industrial code as printed hereafter various palliatives to the risks of industry are to be found in different legislative enactments, *e.g.*, the Miners' Accident Relief Fund, as outlined in part "Mining Industry," and the Workmen's Compensation Act, which is the most recent of these measures.

WORKMEN'S COMPENSATION ACT.

The Workmen's Compensation Act, of 1910, came into operation on 1st January, 1911. It provides for compensation to workmen for injuries suffered in the course of their work, and applies to employment in or about any railway, tramway, factory, workshop, mine, quarry, wharf, vessel, engineering or building work, except mines where benefits are afforded under the Miners' Accident Relief Act. Employers of less than four persons are exempt from the provisions of the Act. Casual workers are not entitled to benefits, nor is compensation payable in respect of injury which does not disable the workman for at least two weeks, or which is caused by misconduct of the workman.

When death results from the injury the benefit ranges from £200 to £400 in the case of a workman with relatives wholly dependent on his earnings, and this amount is reduced proportionately if dependents are only partly dependent on him. If the workman leaves no dependents,

medical and funeral expenses up to £12 may be paid. Where total or partial incapacity results the employer must make a weekly payment, not exceeding 50 per cent., of the average weekly earnings during the preceding twelve months, up to a maximum of £1 per week, and a total liability to the employer of £200. In the case of employees under 21 years of age receiving less than 20s. a week, 100 per cent. of average earnings is substituted for 50 per cent., but the weekly payments must not exceed 10s. In the case of aged and infirm workmen the maximum amount of compensation may be reduced by agreement made between the employer and workman.

The Act also provides for the substitution, for these benefits, of any scheme of compensation certified by the Registrar of Friendly Societies as not less favourable to the workman and dependents than the corresponding scales contained in the Act.

At the time of writing, only one application has been made to the Registrar for such a certificate.

STATE OF THE LABOUR MARKET.

The following statement shows the condition of the labour market generally, as reported month by month, during 1911, by the State Labour Bureau. These reports are based on advices from some 200 agents in various parts of the State:—

1911.

January.—Some natural seasonal slackness in city and suburban business; with abnormal rains, country prospects good; only 5·5 per cent. of agents reported appreciable unemployment.

February.—Abnormal rains continue; rural pursuits hampered, but prospects good. Depression in Newcastle coal trade, combined with wet weather to cause decline in trade; and 8·5 of agents reported appreciable unemployment. In city and suburbs trade was fair, but not so good as in the previous month. Business was slack among order tailors, maritime workers, coal-lumpers, bakers, pastrycooks, and slaughtermen.

March.—Slight retrogression industrially—seasonal slackness more pronounced—50 per cent. of country districts reported no unemployment; 7 per cent. reported appreciable unemployment; revival anticipated at Newcastle. Most trades in city and suburbs brisk. Furniture trades award, limiting hours of work of Chinese, provided between ten and fifteen thousand hours more of work per week in the trade. Bakers slack, also slaughtermen and coal-lumpers. Storemen finished their busy season. First-class labourers greatly in demand.

April.—Rainfall very low; winter slackness approaching; felt by coal-lumpers, deep sea wharf labourers, cold storage employees, and lower grades of labour generally; 45 per cent. of agents reported no unemployed; only 6 per cent. reported appreciable unemployment. In city and suburbs most trades good—some agitation in the boot trade over the employment of women and children.

May.—Improvement visible; rain general, and rural position better; winter slackness less perceptible than for years previously; 51 per cent. of agents reported no unemployed; only 3·5 per cent. report appreciable unemployment. In city and suburbs the building, iron, clothing, and furniture trades good; all available farm and bush workers sent out.

June.—Rain general; prospects good; shearing commenced in west and north; numbers of men engaged in rabbit-trapping; 52 per cent. of agents reported no unemployed; 4 per cent. reported existing unemployment. City and suburban trades generally brisk—boot and printing trades and deep sea wharf labourers somewhat slack—most factories stocktaking.

July.—Fairly general rains—temperature mild; lambing good; for early shearing the weather was favourable, and the general outlook for rural industries was satisfactory. In the country some men unemployed, partly on account of the Lithgow strike, and partly in anticipation of the commencement of shearing; 47 per cent. of districts reported no unemployed; in 5 per cent. of districts unemployment existed. In city and suburbs the trade outlook bright, the boot trade only being at all unsettled.

August.—Rainfall capricious, but rural industries promised well; 56·6 per cent. of agents reported no unemployment; only 2·6 per cent. reported existing unemployment. In city and suburbs all trades busy. At Lithgow and Newcastle strike conditions still subsisted.

- September.—Slight retrogression; north-western districts needed rain; 3·5 per cent. of districts reported existing unemployment; 52 per cent. reported no unemployment. City and suburban trades prosperous.
- October.—Prevailing dry weather necessitated the cutting of many crops for hay, but light rainfalls at the end of the month saved large areas; in 51 per cent. of districts there were no unemployed; in only 4·5 per cent. of districts was unemployment existent. In city and suburbs trade was brisk; in the Lithgow iron trades work was still suspended; on the wharves interstate shipping was hampered by a strike of the wharf labourers (interstate) for pay at the same rates as deep sea wharf labourers. All bush workers available were in employment, and many second grade labourers were employed in first-class work.
- November.—Fairly general monsoonal rains at the end of the month broke a three weeks' dry spell, during which more crops were cut for hay. In 57 per cent. of districts agents reported no unemployment; in 5 per cent. of districts there were persons unemployed. City and suburban trades were good, but the iron trades strike at Lithgow was maintained. The interstate wharf labourer's strike terminated in a return to work pending a new award. With sections of slaters, miners, and gangers on railway works there were temporary stoppages of work.
- December.—Several districts benefited by good rainfalls, but records of north-east and southern districts were below November average; harvesting practically completed; timber industry particularly flourishing; no unemployment in 58 per cent. of districts; only in 5 per cent. were there unemployed; Lithgow strike continued, otherwise no industrial disturbances were recorded. In city and suburbs employment was satisfactory, the building, iron, furniture, and boot trades particularly being busy.

IMMIGRATION.

State-assisted immigration was inaugurated in New South Wales in the year 1832, and maintained until 1885. After an interval of twenty years, the policy was resumed in 1905. Immigrants to whom the Government grant assisted passages are classified as selected or as nominated. The former include only farmers, agricultural labourers, and domestic servants. The selection of assisted immigrants is made mainly from the populations of England, Scotland, Ireland, and Wales; but a proportion may be drawn from Canada, South Africa, and other parts of the British Empire, also from the United States of America, and European countries other than the United Kingdom, provided they are eligible under the Regulations of the Commonwealth Immigration Restriction Acts. Assisted immigrants must be under 45 years of age, of good character, and in general must afford satisfactory evidence that they are likely to prove suitable settlers. Assistance is given also in respect of their wives and families. By this means selected immigrants are brought to the State for a minimum net fare of £6.

Arrangements have been made with various steamship companies for reductions in the ordinary rates for passages from the United Kingdom, Germany, Belgium, Italy, and other European countries. Besides these reductions a Government contribution of £4 is made on each full fare and £2 on each half fare, which may be increased to £6 on each full fare and £3 on each half fare in the cases of persons who promptly engage in rural industries, or in farm work or domestic service, immediately after arrival in New South Wales.

Persons nominated for assisted passage by friends or relatives in the State may be granted a reduction of £4 on each full fare; this may be increased to £6 on their taking up farm employment. In the case of wives and families nominated by persons in the State, a reduction of £6 is made, which may be increased to £9 per adult, if the nominator is a farmer or farm labourer. Thus the lowest net fares to nominated accepted immigrants are £3 per adult for wives and families of farm workers, £6 for wives and families of other workers, £8 for all other nominees. All nominees must be under 45 years of age (except in the case of a wife, whose age must not exceed 50 years). Sound health and good character are essentials. Only in the cases of near relatives are nominees accepted who follow other occupations than

those of farm labourer, domestic servant, artisan, or manual worker. Nominators are required to lodge the reduced steamer fare, on an undertaking that employment awaits the nominees, or that adequate provision will be made for their maintenance. Any immigrant who settles upon the land as owner, lessee, or labourer, within a reasonable time of his arrival, may be granted a remission of one-half the railway fare for himself and family when travelling to the district in which he settles, and of one-half of the railway freight charged on his household furniture, stock, and agricultural implements. These concessions may be granted also to nominated immigrants proceeding to the homes of their nominators, or travelling to take up farm work or domestic service.

From the 1st January, 1906, to 30th June, 1911, the following assisted immigrants have arrived:—

Class of Immigrant.	From United Kingdom.	From other parts of the British Empire.	From other Countries.	Total.
Farmers	93	28	4	125
Farm labourers	5,926	99	28	6,053
Domestic servants	1,943	9	4	1,956
Others	621	245	.....	876
Families of above... ..	1,539	128	7	1,674
Nominated immigrants	9,477	146	81	9,704
Total	19,609	655	124	20,388

Under the Commonwealth Contract Immigrants Act of 1905, any contract immigrant may land in Australia if the terms of the contract are in writing and have been previously approved by the Minister for External Affairs. Contract immigrants are prohibited only when, in the opinion of the Minister, the remuneration and other conditions of employment in the contract are not as advantageous to the immigrant as those current for workers of the same class at the place where the work is to be performed, or if the contract is made in respect of contingencies connected with an industrial dispute.

In part "Population" of this Year Book is shown the net gain to the State of New South Wales of population drawn from various countries during a term of years. During 1910 the excess of arrivals from, as compared with departures to, countries outside the Commonwealth, is set down as 14,255. For the same period, the total of assisted immigration was 5,058, the average since 1st January, 1906, being 3,184 per annum.

Of unassisted immigrants who arrived during the period, 1st January, 1906, to 30th June, 1911, 6,516 have been placed in employment through the agency of the Immigration and Tourist Bureau.

STATE EXPENDITURE ON IMMIGRATION.

For the financial year 1911, the amount voted by the State Parliament for the promotion of immigration and the advertisement of the State's resources was £25,000. For the year 1912 the amount has been increased to £60,000. This vote is supplementary to the usual vote, approximating £20,000, for maintenance and administration of the offices of the Agent-General in London, and of the Immigration and Tourist Bureau in Sydney. In the continuance of immigration promotion, with the greater amount of money available, it is proposed to alter slightly the policy of the State, so as to confine the system of nomination to persons in certain trades in which employment can be guaranteed, without causing any displacement of the present labour force within the State.

RECEPTION OF IMMIGRANTS.

Vessels carrying immigrants are met, on arrival, by officers of the Immigration Bureau, and in certain cases where large numbers of immigrants are travelling from England, an officer meets the vessel at Melbourne. Suitable accommodation is secured for domestics pending their entry into situations, and advice is given freely to all immigrants. In the majority of cases they go to employment at once.

IMMIGRATION AND THE SHORTAGE OF LABOUR.

The progress report of the Commission appointed to investigate the question of a labour shortage within the State has demonstrated that the volume of voluntary immigration, induced by systematic advertisement of the State and its resources, is inadequate to meet the demand for labour; moreover, assisted immigration has hitherto been confined within fairly definite limits, as noted above; and the special training and preparation of young people for entrance to the skilled trades has not hitherto been undertaken extensively, nor have the developments effected in recent years in the educational system yet had time to affect materially the influx of workers to such trades. The suggested remedy is a more extensive system of immigration, in the direction of registering the applications of employers, arranging for guarantees where such can possibly be secured, and for priority of choice to those employers who tender such guarantees. In this extension the Immigration Bureau would be developed into a labour exchange, and be enabled to adjust the flow of assisted immigration according to the volume of the voluntary inflow.

THE COMMONWEALTH AND IMMIGRATION.

Power to legislate with regard to immigration and emigration is conferred upon the Commonwealth Parliament, under section 51, subsection 27, of the Constitution Act, 1900. Up to the present time the Commonwealth legislation under this section has been restricted to four enactments, viz.:—

Immigration Restriction Acts, 1901 and 1910.

Pacific Island Labourers Acts, 1901 and 1906.

Contract Immigrants Act, 1905.

Emigration Act, 1910.

Encouragement of immigration, as undertaken by the Commonwealth, has been confined to advertisement of the attractions of Australia, generally, with a view to promoting the flow of voluntary immigration to the different States. To carry on this work, the funds made available for the year 1910-11 out of the revenue of the Commonwealth amounted to £25,000; and there is a similar amount for the year ended 30th June, 1912.

The amounts actually expended by the Commonwealth during the past three years are shown in the following statement, viz.:—

Expenditure.	1908-9.	1909-10.	1910-11.
In Great Britain—	£	£	£
For Newspaper advertising	2,110	2,037	5,325
For other purposes	305	3,518	4,675
In Australia	6,229	2,555	5,640
Total	8,644	8,110	15,640

Included in the amounts expended in Australia are the costs of advertising, and of sustentation of special and of official publications, in which are described conditions of life and of industry as existent in Australia. These amounts aggregated £3,612, £1,967, and £4,030, for the respective years quoted above.

TRADE UNIONS.

Under the Trade Union Act of 1881 a "Trade Union" is defined to mean "any combination, whether temporary or permanent, for regulating the relations between workmen and employers, or between workmen and workmen, or between employers and employers, or for imposing restrictive conditions on the conduct of any trade or business, whether such combination would or would not, if this Act had not been passed, have been deemed to have been an unlawful combination by reason of some one or more of its purposes being in restraint of trade."

As the advantages of registration began to be realised by the existent unions, protection was sought, and on an average about ten unions per annum applied for enrolment during the first eight years. In 1890 the State experienced great industrial disturbances, and the trades were so roused to activity that during the next two years 59 unions came into existence, 38 being registered in 1890, and 21 in 1891. The force of the movement had then, however, spent itself, and during the nine years ended 1900, only 30 new bodies sought registration. The Industrial Arbitration Act, 1901, gave legal recognition to industrial unions, when registered, and incorporated, as parties in the making and enforcing of industrial agreements, with the consequence that organisation once more became active, and during the years 1901 to 1908 no less than 225 new unions were formed. During 1908 the Industrial Disputes Act was passed, to supersede the Industrial Arbitration Act, which expired by effluxion of time; but under the new Act the incorporation of the unions was not affected. During 1909 and 1910 the registrations were respectively 27 and 29, and the total number of unions formed up to the end of 1910 was 397. Of these there were on that date 174, or 44 per cent., in existence, and 223, or 56 per cent., had disappeared by amalgamation, cancellation, or dissolution. It may be mentioned that of 225 unions formed during the last ten years, 97, or 43 per cent., have already disappeared. The average duration of extinct unions has been about eight years.

The unions in existence at the end of 1910 are classified as follows, according to the industries or callings to which they are related:—

Group.	Unions.	Members.	Membership per cent. of Total.
	No.	No.	%
Pastoral	4	29,666	22·8
Mining and smelting...	23	20,126	15·4
Shipping and sea transport ...	12	13,315	10·2
Railways and tramways ...	6	17,775	13·6
Other land transport...	6	2,961	2·3
Food and drink	25	9,975	7·7
Clothing	6	3,700	2·8
Building trades	18	6,718	5·2
Engineering and iron trades	14	6,798	5·2
Printing, bookbinding, &c. ...	6	1,785	1·4
Other manufacturing ...	23	8,753	6·7
Miscellaneous	31	8,774	6·7
Total	174	130,346	100·0

These figures show that the pastoral industry has by far the largest number of union members, their strength, relative to the total force of union workers, being 22·8 per cent., or a little less than one-quarter of the whole; and if the mining group, containing 20,126 members, or 15·4 per cent. of the total, be added to the pastoral group, to cover the primary

producers, the resultant group represents 49,792 workers, or 38·2 per cent. of the union strength. Naturally, the strongest unions numerically are found in these two groups, viz., pastoral and mining. The largest union of all is the Australian Workers' Union, with 28,521 members, and next in order of strength are the Railway and Tramway Service Association, with 8,224 members; the Colliery Employees (Northern), with 7,571; and Seamen's Union, with 5,332 members. Following the primary industries, but embracing only about one-half their working force, is the transport group, including 34,051 workers, or 26·1 per cent. of the total; but this group has three subdivisions, viz., Sea Transport, including 10·2 per cent.; Railways, 13·6 per cent.; and other Land Transport, 2·3 per cent.

The manufacturing trades, relatively to the total, are weak. Primary production and transport together absorb 64·3 per cent. of the unionists; 35·7 per cent. are distributed over all manufacturing and other trades; and the fact that no less than 47 out of 174 unions possess less than 100 members each emphasises, when compared with the Census distribution of population shown in the first table, the absence of consolidating forces and economy of administration, and the necessity for amalgamation of kindred interests.

The following statement shows the position of the unions for each of the last three years, as regards finances and membership:—

	1908.	1909.	1910.
Unions existent, end of year	153	166	174
Total income	£105,003	£148,202	£129,754
Total expenditure	£102,402	£147,152	£123,794
Total funds	£90,278	£94,900	£98,758
Membership	113,916	127,402	130,346
Income per member	18s. 5d.	£1 3s. 3d.	19s. 11d.
Expenditure per member	18s. 0d.	£1 3s. 1d.	19s. 0d.
Amassed funds per member	17s. 10d.	14s. 11d.	15s. 2d.

Trade Unions now embrace all types of occupations, and the majority of wage-earners. Organisation of women's trades has been undertaken in recent years, the impetus towards organisation being derived immediately from the necessity of establishing the status of the union as an industrial body.

During 1910 the trade unions extinct numbered 21, this being the highest record over the six years, 1905 to 1910. On the other hand, the registrations of new unions, numbering 29, have been exceeded only three times since the first year of registration (1882), viz., in 1890, 1901, and 1902, when the registrations numbered 38, 35, and 46 respectively. It is noticeable, also, that the heaviest closures have been of unions formed in 1890, 1891, 1902, and 1903, the numbers being 32, 20, 29, and 18 respectively; i.e., of 59 unions registered in 1890 and 1891, only 6 now remain; of 106 unions registered in 1901, 1902, and 1903, primarily in order to secure the benefits of the Industrial Arbitration Act of 1901, only 45 now remain. At these two periods, viz., 1890-1891 and 1901-2-3, the heavy registrations were induced by pressure of development and forces external to the unions. But the steady progression of the last five years points to a safer future, viz.:

Year.	Number of New Unions Registered.	Number of these Unions defunct at 31 Dec., 1910.	Average Membership of Unions Reporting.
1906	11	3	620
1907	13	9	693
1908	25	3	744
1909	27	10	860
1910	29	—	805

The net increase of 80 unions in five years, and the variety of industries organised, indicate plainly a movement inspired from within, and, given no extraordinary setback, there is promise of a position of affairs in which every trade, and every section of a trade even, will be organised. In regard to the unions closed, it must be noted that a considerable number have fallen out through amalgamations, and the average membership per union has been growing fairly steadily.

ORGANISATION OF WOMEN WORKERS.

For 1910 some figures are available to show the extent to which women workers have been organised into unions. At the end of the year there were 2,226 women members, representing 1·7 per cent. of the total union membership. The following figures show the strength of the women unionists in the various groups, as compared with the full strength of unionism, viz.:—

Group.	Membership at 31 Dec., 1910.		
	Females.	Males.	Total.
Textiles—			
Journeymen Tailors	602	715	1,317
General Textile Workers	75	88	163
Women Workers	50	...	50
	727	803	1,530
Factories—			
Tobacco Workers	146	175	321
Cigar Factory Employees	51	75	126
Factory Employees (Sydney)	250	680	930
" " (Hunter River)	228	356	584
Straw Hat-makers	67	70	137
Saddlery Trade Employees	15	398	413
Meat Packing, &c.	22	330	352
	779	2,084	2,863
Personal Service—			
Hotel Employees	274	856	1,130
Domestic Workers	43	3	46
	317	859	1,176
Other—			
Railway and Tramway Service	23	8,201	8,224
Shop Assistants	202	1,035	1,237
Storemen	70	1,709	1,779
Clerks	12	397	409
Working Jewellers	16	171	187
Watchmen and Caretakers	80	200	280
Total	403	11,623	12,026
Total, All Groups	2,226	15,369	17,595

Summarising, the proportion of females to males in the various groups, and their comparative strength as related to total membership, appears as follows:—

	Proportion per cent. of Membership.			
	F.	M.	F.	M.
Textile Workers	47·51	52·49	32·66	8·70
Factory Workers	27·21	72·79	35·00	16·27
Personal Service	26·95	73·05	14·24	6·68
Other	3·35	96·65	18·10	68·35
Total	12·65	87·35	100·00	100·00

THE FINANCIAL STRENGTH OF THE UNIONS.

Financially, the strongest unions are those connected with the printing and bookbinding trades, as the following statement of accumulated assets *per capita* of membership, in the various groups, will show:—

	£	s.	d.
Printing and Bookbinding	3	8	4
Engineering	1	10	0
Building	1	9	2
Miscellaneous	1	8	1
Mining and Smelting... ..	1	0	6

The following statement shows the total income and expenditure, and the assets of each group, and also the amounts expended on the various benefits, viz., accident, unemployment, funeral, &c.

Group.	Total Income.	Expenditure.				Proportion of Total Expenditure absorbed in—	
		Benefits.	Legal Charges.	Other.	Total.	Benefits.	Legal Charges.
	£	£	£	£	£	per cent	per cent
Pastoral	19,676	...	513	19,104	19,617	...	2·62
Mining and Smelting	34,536	17,113	2,641	15,059	34,813	49·16	7·59
Shipping and Sea Transport..	9,080	136	2,622	5,143	7,901	1·72	33·19
Railways and Tramways	8,661	345	490	6,404	7,239	4·77	6·77
Other Land Transport	2,020	...	138	1,618	1,756	...	7·86
Food and Drink	10,789	259	496	9,799	10,554	2·45	4·70
Clothing	2,950	28	97	2,559	2,684	1·04	3·61
Building Trades	6,966	1,240	590	3,879	5,709	21·72	10·33
Engineering and Iron Trades	13,723	3,328	929	9,628	13,885	23·97	6·69
Printing, Bookbinding, &c....	3,347	342	185	2,649	3,178	10·77	5·82
Other Manufacturing	9,253	842	497	6,888	8,227	10·23	6·04
Miscellaneous... ..	8,753	216	407	7,610	8,233	2·62	4·94
Total	129,754	23,849	9,605	90,340	123,794	19·24	7·75

The relation of the expenditures for benefits, and for legal charges, to the total expenditure, discloses some interesting features; *e.g.*, the expenditure on benefits rises to nearly half the total expenditure in the mining and smelting group, and falls as low as 1·04 per cent. in the clothing trades; while on the average it represents 19·24 per cent. of the total. Legal charges, including expenditure in connection with wages boards, &c., rise to 33·19 per cent. of total expenditure in the shipping and sea transport group, and fall to 2·62 per cent. in the pastoral group, the average being 7·75 per cent. for all groups.

The following statement gives a general view of the numerical strength of the unions:—

	No. of Unions.
With Membership exceeding 25,000	1
" " 8,000	1
" " 5,000	2
" " 4,000	2
" " 3,000	2
" " 2,000	2
" " 1,500	6
" " 1,000	12
" " 500	22
" " 100	65
" less than 100	47
" not stated	12

INDUSTRIAL ARBITRATION.

The Parliament of New South Wales has given, during the last twenty years, much attention to legislation having for its object the improvement of the industrial conditions of the people generally, and involving particularly the settlement of trade disputes and regulation of the hours of employment and rates of wages.

Necessarily, as no community of workers has yet been able to display a perfected and satisfactory code of industrial legislation which might be adapted to suit local conditions, the whole of the legislation yet enacted in this State has been of an experimental nature, and subject to modification in the light of experience gained, and the exigencies of time and the ever-changing conditions of an advancing civilisation, involving new conditions of labour and new methods of production and distribution.

EARLY LEGISLATION—CONCILIATION AND ARBITRATION.

The history of industrial legislation dates from the year 1892, when the Trades Disputes Conciliation and Arbitration Act became law. As the preamble of the Act declares, it was believed that the establishment of Councils of Conciliation and of Arbitration for the settlement of disputes between employers and employees would conduce to the cultivation and maintenance of better relations and of more active sympathy between employers and their employees, and be of great benefit in the public interest by providing simple methods for the prevention of strikes and disputes, through which industrial operations are liable to serious and lasting injury, and the welfare and peaceful government of the country to be imperilled.

The way was prepared for the initiation of such legislation by the progress made by trade unionism, both in the way of organisation of trades and by securing direct representation in Parliament. But actually this original legislation was the direct outcome of the labour disruption of 1890-2, which involved the maritime, shearing, and mining industries practically of all Australia, and followed the London Dockers' strike of 1890.

Under this Act, Councils of Conciliation or of Arbitration were to be established, to which applications were to be referred from employers and employees regarding disputes or claims. Pending the division of the State into industrial districts, a general Council of Conciliation was projected, to be composed of twelve to eighteen representatives elected by employers and employees. The district councils were to be elected for two-year terms, and to be composed of two representatives of employees registered under the Trade Union Act, and two of registered employers' associations. Apart from the ordinary Councils of Conciliation, special conciliators might be appointed by the parties to a dispute. Then, supplementary to the Councils of Conciliation, there was a Council of Arbitration elected for a similar term of two years, but composed of three members, being representatives selected by employers and by employees, with a third chosen by mutual agreement of the first two. To this council matters might be referred after failure of the Council of Conciliation, or directly, and the Council of Conciliation might sit as assessors to the Council of Arbitration, if the parties so agreed. The latter council sat as an open court, and was guided by the principles of equity and good conscience. Representation by attorney was not permissible, but the council had full power to summon witnesses, and to enter upon premises for inspection. Awards, which had to be issued within one month of conclusion of sittings, were enforceable by legal process only by prior agreement of the parties, but the claims were made to deal with matters of wages, workmanship, conditions of work, quality of food supplied to employees, and sanitation of workshops.

As this Act did not compel either party to a dispute to submit its case to the Council of Arbitration and Conciliation, nor to abide by any award made if a case were submitted, its ineffectiveness defeated its object, and it was replaced by a new enactment. While the Act remained in force very few cases were decided under its provisions.

The Conciliation and Arbitration Act, 1899, aimed at the prevention, as well as the settlement, of trade disputes; it authorised the Minister, in cases where a disagreement was pending, or probable, between an employer and employees, to direct inquiry into the causes and circumstances of the difference, and to take steps to enable the parties to meet together under the presidency of a chairman mutually selected, with a view to an amicable settlement. In the event of failure, the Minister could direct a public inquiry into the causes of the difference, and on the application of either employers or employees, or of both, could appoint a board of conciliation. On the application of both parties an arbitrator could be appointed.

Parties to a dispute were not compelled to submit their cases, and to remedy the imperfections disclosed further legislation was enacted.

These two initiatory efforts were aimed at the elimination of the strike as an instrument in the settlement of industrial disputes, or at least at minimising the disastrous consequences to which the community becomes liable. But, contemporary with these strike preventives, legislation was originated in Victoria to deal with sweated industries, and to determine fair wage rates. In the second stage of industrial legislation in this State, these two ideals were disclosed in the embodiment of the combined objective, the prevention of strikes and lock-outs, and the assessment of fair wages and working conditions.

THE SECOND PERIOD—ARBITRATION.

The Industrial Arbitration Act, 1901, provided for the registration and incorporation of industrial unions and the making and enforcing of industrial agreements; constituted a court of arbitration for the hearing and determination of industrial disputes and matters referred to it; defined the jurisdiction, powers, and procedure of such court, and provided for the enforcement of its awards and orders. This Act remained in force until the 30th June, 1908; but in the year 1905 it was so extended through the passing of the Industrial Arbitration (Temporary Court) Act that if the Registrar, or in cases of appeal the Court, were satisfied that compliance had been made with the Act, there could be registered, as an industrial union, any person or association of persons, or any incorporated company or any association of incorporated companies, employing on an average, taken per month, not less than fifty employees; and any trade union or association of trade unions.

The industrial union could make with another industrial union or with an employer, an agreement in writing relating to any industrial matter, and the Court had jurisdiction to hear and determine, according to equity and good conscience, industrial disputes and industrial matters, and to make orders or awards in pursuance of such hearing and determination. An industrial dispute was defined to be a dispute in relation to industrial matters arising between an employer, or industrial union of employers, and an industrial union of employees or a trade union, and included a dispute arising out of an industrial agreement.

This Act, in providing for the prevention of strikes and lock-outs, made it a misdemeanour for any person who, before a reasonable time had elapsed for a reference to the Court of the matter in dispute, or while any proceedings were pending in the Court in relation to an industrial dispute, did any

act or thing in the nature of a lock-out or strike; or suspended or discontinued employment or work in any industry; or instigated to or aided in any of the abovementioned acts.

With regard to industrial agreements, a large number of employers and employees' unions entered into agreements under the provisions of this Act.

INDUSTRIAL UNIONS.

The following statement shows the membership of the unions, both of employers and employees, registered during the currency of the Act of 1901:—

Year.	Employers' Union.	Employees' Union.
	Membership.	Membership.
1902	2,302	58,203
1903	2,916	63,510
1904	3,204	71,031
1905	3,343	78,665
1906	3,172	85,199
1907	3,229	96,581

The Industrial Arbitration Act, 1901, was a tentative measure which was intended to remain in operation for seven years. Principally on account of the slowness of the Court in dealing with disputes, and the consequent congestion of cases, it was superseded, on its effluxion, by the Industrial Disputes Act, 1908.

INDUSTRIAL DISPUTES AND WAGES BOARDS.

In the Arbitration Act the principal innovation lay in the extension of the definition of industrial disputes, so as to include consideration of conditions prevailing in industries in which no legal dispute existed. From the Act of 1908, which represents the third stage in the development of a perfect industrial code, a social ideal has been evolved into a definite pronouncement, that every normal individual is entitled to a reasonable standard of comfort consistent with the welfare of the community.

The Industrial Disputes Act, 1908, which was later varied and extended by the Amending Acts of 1908, 1909, and 1910, provided that all awards, orders, and directions of the Court of Arbitration, and all industrial agreements current and in force at the commencement of the Act, should be binding on the parties, and on the employers and employees concerned, for the period fixed by the Court, or by the award, or agreement, or where no period was fixed, for one year from the 1st July, 1908. Any industrial agreement may be rescinded or varied in writing by the parties, and any such variation, if filed with the Registrar, is binding as part of the agreement.

Provision is made under this Act for the registration of trade unions, and the expiration of the Industrial Arbitration Act, 1901, does not affect the incorporation of industrial unions registered under that Act.

With regard to industrial agreements, any trade union registered under this Act may make a written agreement with an employer relating to any industrial matter.

The Industrial Court consists of a judge, sitting with assessors, if necessary.

Constitution and powers of Boards.

The Court may recommend, and the Minister may direct, that a board be constituted for an industry on application to the Industrial Court by—

- (a) an employer or employers of not less than twenty employees in the same industry; or
- (b) a trade union registered under the Act having a membership of not less than twenty employees in the same industry; or
- (c) an industrial union whose members are such employers or employees; or
- (d) where there is no trade or industrial union of employees in an industry having membership and registered as aforesaid, or where such union fails to make application, then not less than twenty employees in such industry.

The Minister, on the recommendation of the Industrial Court, but without any application, may also direct that a board be constituted.

Each board consists of a chairman and not less than two (nor more than four) other members, as determined by the Industrial Court, one half of whom are employers and the other half employees who have been or are actually engaged in any industry or group of industries for which the board has been constituted. Where the employers or employees consist chiefly of women and girls, the Court may waive this qualification.

The Chairman of a board may, if he judge it necessary, appoint two or more assessors, representing employers and employees respectively, to advise the board on technical matters, but such assessors may not take part in the deliberations of the board.

Each member of a board and each assessor, upon appointment, must take an oath not to disclose any matter or evidence relating to trade secrets; to the profits or losses or the receipts and outgoings of any employer; to the books of an employer or witness produced before the board; nor to the financial position of any employer or of any witness.

Jurisdiction of Boards.

A board with respect to the industry or group of industries for which it has been constituted may—

- (a) decide all disputes;
- (b) fix the lowest prices for piece-work, and the lowest rates of wages payable to employees;
- (c) fix the number of hours and the times to be worked in order to entitle employees to the wages so fixed;
- (d) fix the lowest rates for overtime and holidays and other special work, including allowances as compensation for overtime, holidays, or other special work;
- (e) fix the number or proportionate number of apprentices and improvers, and the lowest prices and rates payable to them. Such prices and rates may be according to age and experience;
- (f) appoint a tribunal, other than the board itself, for the granting of permits allowing aged, infirm, or slow workers, who are unable to earn the lowest rates of wages fixed for other employees, to work at the lowest rates fixed for aged, infirm, or slow workers. If no such tribunal is provided by the board, the Registrar has jurisdiction to grant such permits;
- (g) determine any industrial matter;
- (h) rescind or vary any of its awards.

Subject to the right of appeal under the Act, and to such conditions and exemptions as the board is authorised to determine, the award of a board is binding on all persons engaged in the industry or group of industries within the locality specified for the period fixed, which may be not less than one nor more than three years. A copy of the award must be exhibited at the place where the industry is carried on. Each award of a board is published in the *Government Gazette*, and from that date commences to operate.

Procedure of Boards.

A board or any two or more of its members may enter and inspect any premises used in any industry which is the subject of a reference or application to the board, and may inspect any work being carried on there.

The board may admit and call for such evidence as in good conscience it thinks to be the best available, whether strictly legal evidence or not. The question as to the admissibility of evidence is decided by the chairman alone.

Unless by consent of the chairman, no person may appear as an advocate or agent unless he is actually and *bonâ-fide* engaged in the industry or in one of the industries for which the board has been constituted. And no member of a Board shall act as advocate for or agent of any party before a Board.

Appeal from Board.

At any time within a month after publication of any award by a board, any trade or industrial union or any person bound by the award may apply to the Industrial Court for leave to appeal to such Court. The Court alone has power to rescind or vary any award or order made by it, or any award of a Board which has been amended by the Court, or any award of a Board which has been dissolved or is no longer in existence; but where public interests are endangered, the Crown may intervene in proceedings, and make any necessary representations; or, further, the Crown may at any time after the making of an award, apply for leave, and appeal to the Industrial Court.

Enforcement of Awards and Penalties.

Where an employer employs any person to do any work for which the price or rate has been fixed by an award or by an industrial agreement, he is liable to pay in full to such person the price or rate so fixed. Within three months after such money has become due, such person may apply to the Industrial Court for an order to recover from the employer the full amount of any balance due in respect of such price or rate, notwithstanding any smaller payment or any express or implied agreement to the contrary.

Any remedy which the employee may have under the Masters and Servants Act, 1902, is still preserved.

If any person does any act or thing in the nature of a lock-out or strike, or takes part in such, or suspends or discontinues work in any industry, or instigates to or aids in any of the abovementioned acts, he is liable to a penalty not exceeding one thousand pounds or in default, to imprisonment.

A breach of an award, or an industrial agreement, involves liability to a penalty not exceeding fifty pounds or, in default, imprisonment.

An employer is liable to a penalty should he dismiss an employee by reason merely of the fact that the employee is a member of a board or of a trade union or an industrial union, or has absented himself from work through being engaged in other duties as member of a board, or is entitled to the benefit of an award or industrial agreement. In every case it shall lie on the employer to satisfy the judge that the employee was so dismissed by reason of some facts other than those mentioned. When a member of a trade or industrial union is convicted of an offence against the

Act, the Industrial Court may order the trustees of the trade union or of a branch thereof, or the industrial union, to pay out of the funds of the union or branch any amount, not exceeding twenty pounds, of the penalty imposed.

Every employer in an industry in respect of which an award, or an industrial agreement, is in force must keep time-sheets and pay-sheets of the employees in such industry, and such time-sheets, etc., may be examined by an inspector who reports to the Registrar.

OPERATIONS UNDER THE ACT.

During the three years ended June, 1911, the operations of the Industrial Court have been as follows:—

Year.	Applications received for Boards.	Recommended.	Variations of Awards.	Boards dissolved.
1909	105	100	...	3
1910	44	38	35	13
1911	34	34	60	7

Of the recommendations made for the constitution of Boards, two were subsequently cancelled, and of the 170 Boards finally recommended and constituted, 23 were dissolved in the three years. During the year ended 30th June, 1910, 20 awards of the Court of Arbitration were re-enacted, in addition to the 95 orders issued during 1910 and 1911, varying awards made by Boards, which were as follow:—1909, 45; 1910, 102; 1911, 54.

Proceedings before the Industrial Court for the enforcement of awards, and recovery of penalties, included the following:—

Year.	Orders for Recovery of moneys due under Awards.	Convictions for		
		Lock-outs.	Strikes.	Unlawful dismissal.
1909	8	2	5	3
1910	20	2	5	1
1911	12	...	132	...

Proceedings in the Court, subsequent to awards made, including appeals and actions for breaches of awards, covered the following, viz.:—

Year.	For breaches of Awards.		Applications granted for leave to appeal.	Appeals from Registrar upheld.
	Convictions.	Cases dismissed, withdrawn, &c.		
1909	7	12	...	1
1910	172	288	18	1
1911	72	145	18	1

Before the Industrial Registrar, during 1910-11, proceedings incidental to awards involved 664 cases, as against 520 in 1909-10, and 163 in 1908-9. Matters dealt with under the statutory powers conferred upon the Registrar include the following:—

	1909.	1910.	1911.
Registration of Unions effected	...	71	34
Registration of Unions disallowed	...	2	4
Cancellation	...	4	4
Agreements filed	...	16	27
			18

Further, during the year 1910-11, 46 orders were made in the Registrar's Court for the recovery of moneys due under award, and 403 convictions were made for breaches of awards, and 7 for breaches of agreements.

The statement below shows the principal boards constituted under the Industrial Disputes Act, 1908, to August, 1911, and the duration of the awards made. The awards which have expired have been excluded.

AWARDS OF WAGES BOARDS TO 31ST AUGUST, 1911.

Industry and Class of Employee.	Duration of Award.	
	From.	Period.
Aerated Waters—Cumberland	April, 1910	years. 1 $\frac{1}{4}$
Baking—		
Bread-carters, Cumberland	Aug., 1909	2 $\frac{1}{2}$
Metropolitan, Hand Bakers	April, 1911	3
" Machine Bakers	" "	3
Newcastle, Bakers	July, 1910	3
" Bread-carters	Oct., 1909	3
South Coast	Oct., 1911	3
Billposters—Cumberland	Nov., 1910	3
Biscuit and Cake Makers	Mar., "	3
Boot Trade	April, 1911	"
Breweries	Jan., 1909	3
Bricklayers	Oct., 1910	3
Brickmakers—Cumberland, Bulli, and Woonona	May, "	3
Broomworkers	Jan., 1911	3
Butchering, Retail—		
Armidale, Tamworth, and other adjoining Districts	June, 1910	2
Bathurst and District	Feb., "	2
Goulburn, Abury, and other adjoining Districts	July, "	2
Metropolitan Retail	Oct., 1911	3
Newcastle and District	July, 1910	1
South Coast	Sept., 1911	3
Butchering, Wholesale	Dec., 1910	3
Slaughtering	Dec., 1911	3
Butchering—Wholesale Carters	Nov., 1909	2 $\frac{1}{2}$
Caterers—Metropolitan	Dec., 1910	3
Cement Workers—		
Granville	July, 1911	3
Portland	Dec., 1909	3
Cigarmakers	Oct., 1910	2
Clothing—		
Cutters and Trimmers	Sept., 1909	3
Tailors and Tailoresses making garments to measure or from chart	Aug., "	3
Coachmaking—		
Rail	Oct., 1910	2 $\frac{1}{2}$
Road	Dec., 1909	3
Coke-works—Illawarra	Aug., 1910	2
Collieries—		
Newcastle and Maitland—non-miners	Mar., "	3
Sydney	July, 1911	3
Southern—		
Engine-drivers	Aug., 1909	3
Miners	" 1910	3
Western Collieries and Shale Mines—		
Shale miners	Dec., 1909	2 $\frac{3}{4}$
Coal miners	Jan., 1910	2
Invincible Colliery—Machine workers	Oct., 1911	2
Confectionery	Mar., 1909	3
Coopers	Feb., 1910	2 $\frac{1}{2}$
Copper, Silver, Tin, and Gold Mines—Mount Boppy	June, 1911	3
Cycle and Motor Cycle	Aug., "	3
Electrical Trades	June, 1910	3
Council of City of Sydney	June, "	3
Electroplating—Metropolitan and Newcastle	Aug., 1911	3
Engine Drivers and Firemen—Coast	Oct., 1909	3
Engine Driving and Firing—Mining	July, 1911	3
Farriers—Metropolitan District	July, 1909	3
Country	Oct., 1911	3

Industry and Class of Employee.	Duration of Award.	
	From.	Period.
		years.
Furniture Trade	Sept., 1909	2½
Blind Makers	June, 1911	3
Glass Works	Aug., "	2
Government Railways and Tramways—		
Boilermakers	Sept., "	3
Car	Oct., 1909	3
Electrical Trades	June, 1910	3
Examiners	" 1909	3
Interlocking Department	July, 1911	3
Locomotive Labourers	Aug., 1909	3
Permanent Way (Railways)	Nov., 1910	3
Quarry	Sept., 1909	3
Traffic—Wages Staff (Porters)	Dec., "	2
" (Ticket Collectors, Examiners, Guards, &c.)	Feb., 1910	2½
Electrical Staff, Tramways	Dec., 1908	3
Permanent Way, Tramways	Nov., 1911	3
Running Staff, Tramways... ..	Dec., 1908	3
Sawmillers	Mar., 1911	3
Hairdressers and Wig-makers	Aug., 1909	3
Hotel, Club, and Restaurant Employees—Hotels and Restaurants	April, "	3
Hotel, Club, and Restaurant Employees—Clubs	Sept., "	3
Hotel and Restaurant Employees, Newcastle	Aug., 1910	3
Iron Trades—		
Boiler-makers	July, 1911	3
Lithgow	Mar., 1909	3
Moulders	May, 1911	3
Stove and Piano Frame-makers	May, "	3
Tinsmiths and Sheet-metal Workers	Oct., "	3
Jam-making	Oct., "	3
Jewellers—Metropolitan	Jan., "	3
Labourers—		
General Workers—Metropolitan Board of Water Supply and		
Sewerage	July, 1910	3
Unskilled—Building	Nov., 1909	3
Unskilled Labourers—Country Sewers (Newcastle)	June, 1911	3
United Labourers	May, 1910	2½
Contractors—Water and Sewerage Board	Aug., "	2½
Country Sewers—Newcastle	June, 1911	3
Wood and Coal	Aug., 1910	3
Laundries—Metropolitan	Jan., 1911	3
Lift Attendants—Cumberland... ..	Dec., 1910	2
Marble and Slate Workers	July, 1911	3
Meat Packing, Canning, and Preserving Works	June, "	3
Milk Industry—		
Carters	Oct., 1909	3
Dairy Employees		
	When price of prime dry lucerne remains £4 per ton for one week.	
Milling—Grain	Dec., 1909	2
Condiments	May, 1911	1
Musicians, Professional	Aug., 1909	3
Painting—Newcastle	Oct., "	2½
Paper-mills	Dec., "	3
Pastrycooks	Aug., "	3
Picture-framers	Sept., 1910	2
Plasterers	Nov., "	3
Plumbers and Gasfitters—Cumberland	Dec., 1909	2½
Newcastle... ..	May, 1911	3
Printing—		
Bookbinders and Paper-rulers	April, "	1
Compositors, Linotype and Monoline Operators (hand composition)	July, 1909	3
Compositors and Operators (machine composition)	Mar., 1911	1
Country	July, "	3

Industry and Class of Employee.	Duration of Award.	
	From.	Period.
Printing (<i>continued</i>)—		years.
Letterpress Machinists	Oct., 1911	3
Lithographic Workers	Oct., "	3
Process Engravers	Aug., "	3
Quarries	July, "	3
Rope-making	April, "	3
Saw-mill Employees—		
Country	Aug., 1910	2
Rous and Richmond	Nov., 1909	3
Saw-mills, Timber-yards, and Box and Case Factories	Sept., 1911	2
Ship-building—		
Port Jackson Painters and Dockers	April, "	2½
Shipping—		
Ferry	Dec., 1909	2½
Tug Boats	Feb., 1911	3
Harbour and Rivers	April, "	2
Port Jackson Steam Lighters and Launches	Oct., "	3
Steam Colliers	Mar., "	1
Shop Assistants—		
Confectioners and Fruiterers	Oct., "	3
Country	Sept., "	3
Metropolitan Drapers	Oct., "	3
Metropolitan Retail Grocers	Oct., 1910	1½
Newsagents	Sept., 1911	3
Pharmaceutical	Aug., 1909	3
Tobacconists	Sept., 1911	3
Slaters—Cumberland	Feb., "	2½
Smelting—Cockle Creek	Mar., "	3
Electrolytic Company	Oct., "	3
Soap and Candle Makers	Sept., 1909	3
Stone-cutters—Stonemasons	Oct., "	3
Storemen and Packers—		
Wholesale Oil Stores	Mar., 1911	2½
Oil and Colour Stores	April, "	2½
Drug Warehouse	Aug., 1910	3
Metropolitan Skin and Hide	Sept., 1909	2½
Wool and Station Produce	Sept., "	3
Tanning	Sept., "	3
Tilelayers	Oct., 1910	3
Trolley Draymen Cumberland	Oct., "	2½
Albury	Aug., 1911	3
Goulburn	Jan., 1910	2
Grooms—Loaders	Nov., "	2½
Grooms—Stablemen and Yardmen	Dec., "	1½
Newcastle	July, 1911	2
Timber Carters	July, "	3
Undertakers	Nov., 1909	3
Cab and Livery Stables (cabmen)	May, 1910	2
" " (Commercial Buggy Drivers and Livery Stable Employees)	June, "	3
Waterside Workers—		
Deep Sea Wharf Labourers	Nov., "	3
Newcastle Coal Shippers	April, 1911	3
Wicker Workers—Cumberland and Northumberland	April, 1910	3
Wine and Spirit Stores	Aug., 1909	2½
Wire-mattress Workers	" "	2
Wire-netting Workers—		
Manufacturing Wire-netting	Sept., "	3
Galvanizing	Dec., "	2½
Wood Workers—		
Carpenters and Joiners—Cumberland and Northumberland	July, 1910	3
Country	April, 1911	2½
Ship Joiners and Carpenters	Mar., 1910	3
Wool-classers	June, "	3

The majority of awards shown above have a currency of three years. A minority were made for two years; instances of a less currency than two years are comparatively rare. In the award of the Dairy Employees' Board, the period was not defined, and a new Board which was constituted for the industry made an award on 29th November, 1911.

COST OF BOARDS.

The expenditure for Boards, apart from administration, for years ended 30th June, has been as follows:—1909, £3,498; 1910, £9,665; 1911, £8,795.

Of the total expenditure during 1910, chairmen's fees absorbed £4,674, and members' fees, £3,233.

INDUSTRIAL AGREEMENTS.

As has been noted, Trade Unions are empowered under the Act to make written agreements with employers in regard to any industrial matters, and a variation of an agreement, when filed, is as binding as part of the agreement. During the three years in which the Industrial Disputes Act has been in operation, 61 agreements have been filed.

VARIATIONS OF AWARDS.

Variations of awards are made by the Industrial Court. Following is a list of the more important alterations thus made:—

Building—

Sydney T.U. of Painters v. Master Builders Association of N.S.W.,—Rescission of Award of Court of Arbitration of 20th May, 1908.—Date from 1 July, 1909.

Painting (Cumberland)—

Variation of Award of Painting Trades (Cumberland) of 28th June, 1906.

Painting (Newcastle)—

Amendment of Award of Board of 16th October, 1909.

Farriers—

Journeyman Farriers Union of N.S.W.—

Rescission of award and Common Rule of Court of Arbitration of 31st March, 1905, from 28th June, 1909.

Farriers (Metropolitan District) Board—

Leave to appeal against, and amendment of award of, Board of 30th June, 1909.

Saddlery—

N.S.W. Saddle and Harness-makers Trade Society—

Rescission of Award of Court of Arbitration of 30th April, 1908.

Variation of Award of Saddlery Board of 29th June, 1909.

Trolley Draymen—

Trolley Draymen and Carters Union of Sydney and Suburbs—

Rescission of Award of Court of Arbitration of 29th April, 1908.

Milk—

Variation of Award of Milk Industry (Carters, &c.) Board, of 14th October, 1909.

Variation of Award of Milk Industry (Carters, &c.) Board, of 14th October, 1909.

Clothing (Tailoring)—

Variation of Award of Clothing (Tailoring) Board, of 9th July, 1909.

" " Court of 24th November, 1909.

Iron Trades (Ironworkers Assistants)—

Variation of Order of Court of Arbitration of 26th June, 1908.

" " Award of Board of 29th June, 1909.

Woodworkers (Ship's Joiners and Carpenters)—

Rescission of Award of Board of 30th June, 1909.

Plumbers and Gasfitters (Cumberland)—

Variation of Award of 21st December, 1909.

Government Railways and Tramways—

Amendment of Award of Board of 21st December, 1909 (Traffic Wages Staff).

Variation of Award of Board of 2nd November, 1910 (Permanent Way).

Variation of Award of Board of 30th December, 1908 (Tramways).

Unskilled Labourers (Building)—

Variation of Award of Board of 24th November, 1909.

Coachmaking (Rail) Board—

Variation of Award of Board of 2nd March, 1910.

Brewery, No. 1—

Variation of Award of Board of 6th January, 1909.

Wood and Coal Labourers Board—

Amendment of Award of 31st August, 1910, and Variation of 16th October, 1910,
Shipping (Tug-boats)—

Variation of Award of Board of 13th February, 1911.

Musicians Board—

Amendment of Award of Board of 4th August, 1909.

EXPIRED AWARDS.

The Act having been in force for more than three years, and some awards, especially the earliest, being made for periods of less than three years, there are now many awards which have expired, or are now lapsing. Following is a list of recently-expired awards:—

Bakers.

Brushmakers.

Butchering—Retail (Sydney and District).

Clothing—Male Pressers.

Cold Storage—Inside Hands.

Ice Manufacturers (Metropolitan).

Fellmongers.

Government Railway and Tramway—Tram—Permanent Way.

Iron Trades—Ironworkers' Assistants.

Stove and Piano Frame Makers.

Jam Making.

Laundries—Newcastle.

Painting.

Printing—Bookbinders and Paper Rulers, &c.

Saw Milling—Metropolitan and Newcastle.

Saddlery.

Shop Assistants.

Southern Colliery—Engine-drivers.

Storemen and Packers—Public, Bonded and Free Stores.

Stone Cutters—Monumental Workers, &c.

Tipcarters.

Trolley, Draymen—Coal Carters.

In these cases, the parties to the award usually continue working under it till such time as a new Board has been appointed. In several instances, *e.g.*, Butchering, Jam-making, and Saddlery, fresh awards have been made promptly.

AWARDS CLASSIFIED AS TO INDUSTRIES.

To facilitate a clearer comparison of the area of industry covered by these awards the allied trades have been grouped, those relating to manufactures, &c., being classified as shown in part "Manufacturing Industry" of this Year Book.

MANUFACTURES, &c.	
Class.	Awards.
i. Treating Raw Materials..	{ Tanning. Wool-classing.
ii. Oils and Fats, &c.	... Soap and Candle Making.
iii. Processes in Stone, Clay, Brickmaking. Glass, &c.	Cement { Granville. Portland. Glassworks. Marble and Slate Works.
iv. Working in Wood	... Coopering. Sawmilling—Country. Rous and Richmond. Woodworking—Carpenters and Joiners—Country. Cumberland. Ships' Carpenters, &c.
v. Metal Works, Machinery, Boilermaking. &c.	Farriery. Iron Trade.—Lithgow. Moulders. Smelting. Wire Mattress Making. Galvanizing. Netting, Manufacturing.

Class.	Awards.
vi. Food and Drink, &c.	...Aerated Waters. Baking—Bread Carters. Newcastle Bakers. Bread Carters. Biscuit and Cake Making. Breweries. Butchering—Retail—Armidale and District. Bathurst, &c. " Goulburn " Maitland " Newcastle " Wholesale—Carters. Glebe Island Workers. Sydney Meat Preserving Co. Caterers. Cigar Makers. Confectionery. Hotel, Club and Restaurant Employees. Meat Packing, Canning and Preserving. Milk—Carters. Dairy Employees. Milling—Grain. Condiments. Pastrycooks. Wine and Spirit Stores.
vii. Clothing & Textiles, &c....	Bootmaking. Clothing—Cutters and Trimmers. Tailors and Tailoresses. Ropemaking.
viii. Books, Papers, Printing, &c.	Papermilling. Printing. Compositors (hand composing). (machine "). Country Printers. Letterpress Machinists. Process Engravers.
ix. Musical Instruments.	.....
x. Arms and Explosives.	.....
xi. Vehicles, Saddlery, &c....	Coachmaking—Rail. Road. (See also N.S.W. Govt. Railway and Tramway Service.)
xii. Shipbuilding, &c.	...Ship's Carpenters—(See Class iv.)
xiii. Furniture, Bedding, &c....	Blindmaking. Cabinetmaking. Picture Frame Making.
xiv. Drugs, Chemicals.	.....
xv. Surgical Instruments.	.....
xvi. Jewellery	Electroplating. Jewellery.
xvii. Heat, Light and Power ..	Coke Works—Illawarra. Electrical Trades. Sydney Municipal Council (Electric Lighting, &c.) Engine-driving—Coast. Mining. " Southern Collieries (<i>vide infra</i>).
xviii. Leatherware, &c.	...Saddlery.
xix. Minor Wares, n.e.i.	...Broom-making. Wicker-working. Brushmaking.
Mining.	
Coal ... ..	...Newcastle Collieries—Miners. Non-miners. Southern Collieries—Engine-drivers. Miners. Sydney Collieries. Western Collieries and Shale Mines.
Metal ... ..	...Copper, Silver and Gold Miners—Mt. Boppy.
Building ... ..	...Bricklayers. Painters—Newcastle. Plasterers.

Class.	Awards.
Building (<i>continued</i>) ...	... Plumbers and Gasfitters—Cumberland. Newcastle.
	Quarrymen. Stonecutters. Stonemasons. Tile-layers.
Shipping... ..	... Ferry Hands. Harbours and Rivers. Steam Collier. Tugboats.
General Labourers ...	... Government Railway Loco. Labourers Metropolitan Water & Sewerage Bds.—Contractors. General Workers. Unskilled—Building. Country Sewers. Sydney Municipal Council Labourers. Waterside Workers—Deep-sea Wharf Labourers. Newcastle Coal Shippers. Wood and Coal Labourers.
Shop and Store Hands...	... Metropolitan—Drapers Retail Grocers. Skin and Hide Storemen. Pharmaceutical Assistants. Drug Warehousemen. Wholesale Oil Storemen. Oil & Color Storemen. Wool and Station Produce Storemen.
Carters and Draymen ...	... Trolley Draymen—Country. Cumberland. Goulburn. Newcastle. Grooms. Timber Carters. Bread Carters } See Class VI—Food and Drink, &c. Butchers }
Miscellaneous ... ..	... Billposters. Hairdressers. Laundries (Metropolitan) Lift Attendants. Musicians. Undertakers. Cab and Livery Stables' Cabmen. Commercial Buggy Drivers.
Railway & Tramway Service ...	Rail—Car. Electrical Trades. Examiners, &c. Interlocking. Loco. Labourers. (See General Labourers.) Permanent Way. Quarrying. Sawmilling. Traffic (Wages) Staff—Porters. Ticket Collectors, &c.
	Tram—Electrical Staff. Running „

HOURS OF WORK.

In 1855, after a strike, the concession of an eight-hour working day limit was granted to operative masons. In the fifteen years following, the spread of the movement was not great, but in 1871 the Eight-hour Day celebration (since held annually) was inaugurated by the four classes then working the eight-hour day, viz., the stonemasons, brickmakers, carpenters, and general labourers; in the thirty years since that inauguration, an eight-hour day has become the standard of custom for the majority of trades, and in recent years has been fixed by the awards of Boards as the legal standard.

Under the Factories and Shops Acts of 1896 the normal working hours of women and of boys under 16 years of age were limited to 48 per week, with a

maximum period of five hours' continuous labour and an overtime limitation of three hours per day.

Though the majority of Wages Boards awards have legalised the 48-hour normal working week, the awards in which that standard has not yet been reached are numerous. On the other hand, there are cases in which a shorter working week has been prescribed. The shortest week fixed is 36 hours, and this applies to rock-choppers and sewer-miners, and employees engaged on night duty for the Metropolitan Board of Water Supply and Sewerage and the Sydney Municipal Council. For stone-cutters the limit is fixed at 44 hours; for process engravers in the printing trade, 44½ hours; for the painting trade in the county of Cumberland, the range is from 44 to 48 hours per week, at an hourly rate of wage. In three other cases, viz., engine-drivers, in the western collieries and shale mines, waterside workers, and storemen and packers in bond and free stores, and in drug warehouses, the limits are respectively 46, 46½, and 47½ hours. It is to be noted that most of the occupations for which the short work is fixed are regarded as more than usually unhealthful or strenuous.

In most cases in which a working week in excess of 48 hours is prescribed, it is to be noted that the workers are regarded generally as unskilled, the chief groups being carters and shop assistants. Yet there are occasional and notable instances of long working weeks in occupations which might easily appear entitled to a short week; *e.g.*, cement workers, in continuous processes, and employees at the steel and blast furnaces in the iron trades at Lithgow, and pharmaceutical shop assistants, in all which cases a 56-hour week is prescribed. The maximum working week allowed under any award is 91 hours, alternating with a 78-hour week, for horse-cab drivers; taxi-cab drivers, under the same award, with alternating weeks of 84 and 72 hours, occupy the second highest place on the list.

REGULATION OF HOURS OF WORK.

In connection with the hours of work of shop assistants of all classes, various specific enactments have been made to restrict the working hours with certain defined limits. The first of these enactments was the Early Closing Act of 1899, which, with its amendments in 1900 and 1906, required the closing of scheduled shops for one-half day per week, the option being allowed of a Wednesday or Saturday half-holiday. In practice, it was found in the majority of shops, in the metropolitan and Newcastle districts particularly, that the Saturday half-day was favoured; and to make this day the universal half-holiday for the metropolitan and Newcastle districts, and in several country shopping districts, as declared, the Saturday Half-holiday Act was passed in the latter part of 1910. Under this Act, shops, with a few specified exceptions, are required to close at 1 o'clock on Saturday, but are permitted to remain open till 10 p.m. on Friday nights. The closing hour on other week nights remains 6 p.m. In relation to the working hours in factories, reference has been made to the growing practice of completing the full week's work within five days, so leaving the Saturday a full holiday.

LIST OF TRADES.

Hours of Work
per week.

- 36 Metropolitan Water and Sewerage Board—General Workers (Maintenance-men, Carters on night shifts, and Sewer Workers).
- Sydney Municipal Council Employees (Sweepers).
- Unskilled Labourers (Cumberland), Water and Sewerage Board, contractors.
- „ „ sewer mining and rock guttering.
- „ „ Country sewers, Newcastle, „
- 44 Stonecutters.
- 44-48 Painting (Cumberland).
- 44½ Printing—Process Engravers.
- 46 Western Collieries and Shale Mines—Engine-drivers.

Hours of Work
per week.

- 46½ Waterside Workers.
47½ Storemen and Packers—Bond and Free Stores.
Drug Warehouses.
48 Aerated Waters (Cumberland).
Baking—Metropolitan Hand Bakers.
Machine „
Newcastle Bakers.
South Coast „
Billposting.
Biscuit and Cake Makers (except Oven Firemen, 54, and Watchmen, 78).
Boot Trade.
Breweries (except Drivers and Grooms, 57).
Bricklayers.
Brickmaking (except Carters, 57).
Broomworkers.
Brushmakers.
Butchering (Wholesale).
Cement Working { Granville } (in continuous processes, 56).
Portland }
Cigarmakers.
Clothing—Chart and Order Tailoring.
Cutters and Trimmers.
Pressers, Male.
Coachmaking—Rail.
Road.
Cokeworkers.
Cold Storage—Inside Cold Storage Hands.
Metropolitan Ice Manufacturers.
Confectionery.
Coopers.
Cycle and Motor Cycle Making.
Electrical Trades.
„ Sydney Municipal Council.
„ Government Railways and Tramways.
Electroplating (Metropolitan and Newcastle).
Engine-driving and Firing—Mining.
Coast.
Farriery—Country.
Metropolitan.
Fellmongers and Wool and Basil Workers.
Furniture Trades.
Blindmakers.
Glassworking.
Government Railways and Tramways—Boilermaking.
Car.
Examiners (Metropolitan and Newcastle).
Interlocking.
Locomotive Labourers.
Sawmillers. [and flagmen.
Permanent Way (Rail), except watchmen
„ „ (Tramways).
Running Staff „
Iron Trades—Boilermakers.
Ironworkers' Assistants.
Lithgow (except Steel and Blast Furnaces) (56).
Moulders.
Stove and Piano Frame Makers.
Tinsmiths and Sheet-metal Workers.
Jam Industry.
Jewellery (Metropolitan).
Laundering (Metropolitan).
(Newcastle).
Marble and Slate Working.
Meat Packing, Canning, and Preserving.
Milling—Condiments.
Grain.
Mining—Copper, Silver, Tin, and Gold (Mount Boppy).
Western Collieries and Shale Mines—Cokeworkers and Surface-hands.
Painting (Newcastle).

Hours of Work
per week

- 48 Papermilling.
(cont.) Pastrycooks.
Picture-framers.
Plasterers.
Plumbing and Gasfitting (Cumberland).
(Newcastle).
Printing—Bookbinding and Paper-ruling.
Composing (hand).
" (machine).
Country.
Letterpress Machinists.
Lithographing.
- Quarries.
Ropemaking.
Saddlery.
Sawmill Employees (Metropolitan and Newcastle).
(Rous and Richmond).
Sawmill, Timber Yard, and Box and Case Factories.
Shipbuilding—Port Jackson—Painters and Dockers.
Slaters (Cumberland).
Smelting—Electrolytic Co.
Soap and Candle Making.
Stonecutters—Monumental Workers.
Stonesetters.
Storemen and Packers—Metropolitan Skin and Hide.
Oil and Colour Stores.
Wholesale Oil Stores.
Wine and Spirit Stores.
Wool and Station Produce.
- Sydney Municipal Council Employees—General Labourers.
Tanning.
Tilelaying.
Undertakers (except Shopman, 49½, and Yard and Coachman, 55).
Cab and Livery Stables Employees.
Commercial Buggy Drivers.
Unskilled Labourers—Building.
Country Sewers (Newcastle), non-mining.
United Labourers, non-mining.
Water and Sewerage Board Contractors, non-mining.
- Wickerworkers (Cumberland and Northumberland).
Wire-mattress Makers.
Wire-netting Workers (except Carriers).
" Galvanizers.
Woodworkers—Carpenters and Joiners.
Country.
Ship's Carpenters and Joiners.
- 48-57 Milk Industry—Carters, &c.
48-54 Government Railways and Tramways—Electrical Staff (Tramways).
48-60 Traffic Wages Staff (Porters, &c.).
49 Shop Assistants—Country (Females).
49½ Undertakers—Shopmen.
50 Shop Assistants—Metropolitan Drapers.
Trolley Draymen, and Carters—Albury (Butter Factory Drivers).
51 Shipping—Port Jackson Steam Lighters and Launches (Launches and private Lighters).
Wire-netting Workers—Carriers.
- 52 Butchering—Armidale, Tamworth (Slaughteryard Workers).
Bathurst and District.
Goulburn and District.
Newcastle and District.
South Coast (Slaughteryard Workers).
Shop Assistants—Country (Males).
Newsagents.
- 52½ Trolley Draymen, and Carters—Albury (except Butter Factory Drivers, 50).
53½ Shop Assistants—Metropolitan Retail Grocers.
(Cumberland), 60 in Summer, 58 in Winter.
53½ Trolley Draymen (Newcastle).
Wood and Coal Labourers.
54 Baking—South Coast (Breadcarters).

Hours of Work
per week.

- 54 Biscuit and Cake Makers—Oven Firemen.
(cont.) Government Railways and Tramways—Examiners (outside Metropolitan and Newcastle Districts).
Shipping—Port Jackson Steam Lighters and Launches (Tugs and public Lighters).
Shop Assistants—Bookstalls.
Confectioners and Fruiterers.
- 54½ Shop Assistants—Country (Carters).
Trolley Draymen—Goulburn (except Grocers, 57).
55 Undertakers—Yard and Coach Men.
56 Cement Workers—Granville (continuous processes).
Portland
Iron Trades—Lithgow (Steel and Blast Furnaces).
Metropolitan Water and Sewerage Board—General Workers (Valve Attendants).
Shop Assistants—Pharmaceutical.
Trolley Draymen—(except Cumberland, 58 and 60).
Coal Carters.
Timber Carters.
- 57 Baking (Newcastle)—Town Carters.
Brickmaking—Carters.
Breweries—Drivers and Grooms.
Shipping—Harbours and Rivers.
Trolley Draymen—Goulburn (Grocers).
- 58 Butchering—South Coast (Shopworkers).
Hotel, Club, and Restaurant Employees—Hotels and Restaurants (Dining-room Workers, &c.).
- 59 Butchering (Retail) except Slaughtermen—

	{	Armidale, Tamworth, &c.
		Bathurst, &c.
		Goulburn, Albury.
		Metropolitan.
	{	Newcastle and District.
- Hairdressers and Wigmakers.
Hotel and Restaurant Employees—Newcastle (Dining-room, &c., Workers).
Sydney Municipal Council Employees—Attendants.
- 58-60 Trolley Draymen—Cumberland (Grooms).
- 60 Baking—Cumberland (Carters).
Baking—Newcastle (Country Carters).
Hotel, Club and Restaurant Employees—Hotels and Restaurants—(Night Porters).
Hotel, Club and Restaurant Employees—Clubs (except Night Porters 272 hours per 4 weeks, and Kitchen Hands and Housemaids 126 hours per 2 weeks).
Hotel and Restaurant Employees, Newcastle (Cooks).
Shipping—Ferry.
Tipcarters.
- 61 Butchering—Wholesale Carters.
- 63 Hotel, Club and Restaurant Employees—Hotel and Restaurant (General).
Hotel and Restaurant Employees—Newcastle (Housemaids and General Workers).
Metropolitan Water and Sewerage Board—General Workers (Watchmen and Lamplighters).
- 70 Milk Industry—Dairy Employees.
- 72-91 Undertakers—Cab and Livery Stables (Horse Cabs 91 and 78, Taxi Cabs 84 and 72 hours per alternate week).
- 77 Undertakers—Cab and Livery Stables (Livery Stable Employees).
- 78 Biscuit and Cake Makers (Watchmen).
Sydney Municipal Council Employees (Watchmen).

In the following cases the awards do not specify the duration of a working week, viz. :—

- Caterers—Metropolitan.
Collieries—Newcastle Collieries (non-miners).

Southern	„	Engine-drivers.
„	„	Miners.
Sydney	„	
Western	„	and Shale Mines (Invincible Colliery Machine Workers).
„	„	Coal Mines.
- Lift Attendants.
Musicians, Professional.
Shipping—Steam Colliers.
Tugboats.
Shop Assistants—Tobacconists.
Smelting—Cockle Creek.
Wool Classers.

In the case of the Waterside Workers the award prescribes a maximum shift of 10 hours, and in the case of the Western Collieries and Shale Mines (Invincible Colliery Machine Workers) the award prescribes 8 hours from bank to bank.

It has been explained that wages boards are created to apply to industries rather than to trades or occupations, and in this connection it is of interest to note that under various boards the rates fixed for similar classes of labour vary somewhat. For instance, general labourers are provided for in some twenty-three awards, and the rates of payment vary from 9½d. per hour for labourers during their first twelve months in sawmills in Rous and Richmond Districts is 1s. 3½d. per hour for bricklayers' labourers under the Unskilled Labourers'—Building—Award; or from 6s. 6d. per day for general labourers during the first six months under the Government Railways and Tramways—Electrical Staff (Tramway) award to 8s. 6d. per day for labourers under the Western Collieries and Shale Mines Award, and for bricklayers' labourers under the Government Railway and Tramways Permanent-way Award. Similar variations exist in regard to skilled labour.

APPRENTICESHIP.

Under the Apprentices' Act of 1901, any person resident and trading in New South Wales may take apprentices under certain conditions regulating the apprenticeship, *e.g.*, as to age limitations, probation before completion of indentures. The Act limits the working hours of apprentices to forty-eight hours per week, with saving clauses as to rural industries and domestic service. The minimum age of apprentices is 14 years, and limitations upon the proportion of apprentices to adults are fixed in the majority of cases in the awards of wages boards. Usually the proportion of apprentices or improvers to adult workers is one to three, with a maximum as in the printing trades, of seven apprentices in any institution or business. Information is not available as to the total number of persons now serving under indentures of apprenticeship in this State; nor as to the extent of instruction imparted, the premiums usually paid, and the rate of wages, &c. In view of the defects and difficulties experienced in regard to the apprenticeship system generally, it may be of interest to note that a conference convened by the Government of Victoria in 1906 officially reported that the apprenticeship system had been found ineffective and inadequate in Victoria, as was also the case in Great Britain; and, in order to promote a system fitted to local conditions, the report suggested the enactment of a general apprenticeship law and the establishment of a commission to administer and enforce the law, so removing the question of apprenticeship from the jurisdiction of wages boards.

PREFERENCE TO UNIONISTS.

In the majority of awards made by boards, a clause has been inserted granting, unconditionally, preference to unionists, all other things being equal. In only two cases was the preference made subject to a restriction, *viz.*, in the case of Trolley Draymen (Newcastle) providing that the existing employment of non-unionists should not be prejudiced, and in the Caterers (Metropolitan) Award, in which the preference is not extended to women.

In a few cases the preference clause is in the nature of a prohibition of discrimination against unionists. Following are the awards which thus prohibit discrimination, *viz.*:—

- Coachmaking—Road.
- Cold Storage and Ice Manufacturers—Metropolitan.
- Coopers.
- Engine-driving and Firing (Mining).
(Coast).
- Farriers (Country).

AWARDS—

Government Railway and Tramways—Boilermakers.
 Car.
 Interlocking.
 Permanent-way (Tramway).
 Traffic—Wages Staff (Porters).
 „ „ (Collectors, &c.).

Laundries—Metropolitan Public.
 Newcastle.

Paper Mills.

Shipping—Tugboats.

Sawmills—Country.
 Rous and Richmond.

Soap and Candle Making.

Storemen and Packers—Drugs.

Wickerworkers.

In the following cases the awards disclose no preferential conditions in favour of unionists, viz.:—

Aerated Waters—Cumberland.

Biscuit and Cake Makers.

Butchering—Wholesale—Carters.

Cement Workers—Granville.
 Portland.

Clothing—Pressers (male).
 Tailors, &c. (measured).

Coachmaking—Rail.

Collieries, Southern—Engine-drivers.

Glass Works.

Government Railways and Tramways—Examiners.
 Loco. Labourers.
 Quarry.
 Saw-mills.
 Electrical Staff, Tramway.
 Permanent-way „
 Running Staff „

Hairdressers and Wig-makers.

Hotel, Club, and Restaurant Employees.

„ and Restaurant Employees, Newcastle.

Iron Trades—Ironworkers' Assistants.
 Lithgow.
 Tinsmiths, &c.

Jewellers.

Labourers—City of Sydney.
 Water and Sewerage Board—General Workers.
 Building—Unskilled.
 United.

Lift Attendants.

Meat Packing, &c.

Milk—Dairy Employees.

Milling—Condiment.

Musicians—Professional.

Picture-framing.

Plasterers.

Plumbing and Gasfitting.

Printing—Compositors (Machine).

Shop Assistants.
 Confectioners and Fruiterers.
 Country.
 Metropolitan Drapers.
 Pharmaceutical.

Smelting—Cockle Creek.

Storemen and Packers—Metropolitan Skin and Hide.
 Public Bonded and Free Stores.

Trolley Draymen.
 Cumberland (Grooms)
 Albury.
 Coal Carters.

Tilelayers.

Tip-carters.

Waterside Workers—Deep Sea Wharf Labourers.
 Newcastle Coal Shippers

AWARDS—

Wine and Spirit Stores.
 Wire-mattress Makers.
 Wood and Coal Labourers.
 Wood Workers—Carpenters and Joiners.
 Country.
 Wool Classers.

Awards granting preference are far more numerous than those in which restricted preferences are given; following are the figures for each class:—

Unrestricted preference in	86 awards.
Restricted	2 "
Prohibition of discrimination	20 "
No preference	61 "

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It is to be observed that apparently there has been no general rule governing the decisions of boards in this matter, for where there are several awards relating to various branches in an industry, it will generally be found, as in the iron trades, that in one or two branches the preference is unconditional, while in other branches there is no preference whatever in favour of unionists.

COMMONWEALTH ARBITRATION OPERATIONS.

The legislation of the Commonwealth Parliament relating to arbitration, contained in the Commonwealth Conciliation and Arbitration Acts of 1904, 1909, 1910, and 1911 has jurisdiction only in industrial disputes, which extend beyond the limits of a single State. To secure the protection of the Act, organisations, whether of employers or of employees, must register; to qualify for registration such organisations must represent, as the minimum, 100 employees. Stringent provisions of the Act applying to registered organisations absolutely prohibit the use of funds for political purposes and participation in strikes or lockouts.

As at the end of the year 1911 the number of organisations registered under the Act was seventy-one, viz., seventy of employees, and one of employers. Awards have been issued by the Court applying to eleven of these organisations, and two agreements have been made, as noted on the following complete list of the organisations registered:—

Name of Organisation.	Industry.
The Merchant Service Guild of Australasia	Shipping and marine. (Award.)
The Australian Workers' Union	Pastoral. (Award.)
The Federal Saw Mill Timber Yard and General Woodworkers' Association of Australasia, Victorian Branch.	Saw mill and Woodworking.
The Bread Carters' Industrial Federal Union of Australia.	Breadcarting.
The Commonwealth Steamship Owners' Association. (Employers.)	Interstate shipping. (Award.)
Amalgamated Society of Engineers	Engineering.
Federated Stewards and Cooks Union of Australasia.	Shipping. (Award.)
United Grocers, Tea, and Dairy Produce Employees' Union of Victoria.	Grocery, tea, and dairy produce.
Australian Federated Butchers' Employees' Union	Butchering and meat.
The Federal Saw Mill Timber Yard and General Woodworkers' Association, Adelaide Branch.	Timber trade.
Australian Institute of Marine Engineers...	Shipping. (Award.)
Victorian Branch of the Australian Boot Trade Employees' Association.	Boot, shoe, and slipper manufacturing.
Federated Carters' and Drivers' Industrial Union of Australia.	Carting and carrying.

Name of Organisation.	Industry.
Federated Seamen's Union of Australia	Shipping. (Award.)
Australian Boot Trade Employees' Federation, Adelaide Branch.	Bootmaking.
Australian Boot Trade Employees' Federation, Queensland Branch.	Boot, shoe, and slipper manufacturing.
Candle, Starch, Soap, and Soda Employees' Industrial Union of Victoria.	Candle, starch, soap, and soda.
Waterside Workers' Federation of Australia ...	Shipping.
Australian Boot Trade Employees' Federation, New South Wales Branch.	Boot manufacturing.
Federated Clothing Trades of the Commonwealth of Australia.	Clothing and tailoring.
Federal Saw Mill Timber Yard and General Woodworkers' Employees' Association of Australasia.	Saw mill, timber yard, and general woodworkers.
The Shop Assistants' Union of Victoria	Drapery, grocery, ironmongery, dairy produce, boot salesmen, and fancy goods industries.
Victorian Coal Miners' Association	Coal-mining.
Marine Cooks', Bakers', and Butchers' Association of Australia.	Shipping. (Award.)
Federated Engine Drivers' and Firemen's Association of Australasia.	Land engine driving and firing. (Award.)
Federated Candle, Soap, Soda, and Starch Employees' Union of Australia.	Candle, soap, soda, and starch.
Federated Agricultural Implement and Machinery and Ironworkers' Association of Australasia.	Agricultural implement. (Dealt with under Excise Tariff Act.)
Firewood, Coal, Hay and Corn Trade Employees' Association of Australasia.	Firewood, coal, chaff-cutting, and corn-crushing.
Australian Boot Trade Employees' Federation ...	Boot, shoe, and slipper manufacturing. (Award.)
Shop Assistants' and Warehouse Employees' Association of Australia.	Reception, sale, or delivery of merchandise.
Federated Tanners, Curriers, and Leather-dressers' Union of Australia, Victorian Branch.	Tanning, currying, and leather dressing.
The Australian Saddlery Trade Employees' Federation.	Saddlery, harness, and whip-thong.
The Barrier Branch of the Amalgamated Miners' Association of Broken Hill.	Mining. (Award.)
The Sydney Stage Employees' Association ...	Stage operatives.
The Sewerage and General Labourers' Association of Victoria.	Sewerage and general labouring.
The Amalgamated Society of Carpenters and Joiners, Victorian Branch.	Building trade, joinery, millwrighting, car-building, and agricultural machinery.
Federated Marine Stewards and Pantry-men's Association of Australasia.	Shipping. (Award.)
The Amalgamated Mining Employees' Association of Victoria and Tasmania.	Mining.
The Amalgamated Glass Bottle Makers' Union of Australia.	Glass bottle making.
The United Operative Plumbers and Gas-fitters' Society of Victoria.	Plumbing and gas-fitting.
The Federated Furnishing Trade Societies of Australia.	Furnishing trade.
The Australian Federated Stage Employees' Association.	Theatrical. (Agreement.)
Federated Tanners and Leather-dressers' Employees' Union of Australia.	Tanning and leather-dressing.
Federated House and Ship Painters, Paperhangers, and Decorators' Employees' Association of Australia.	House and ship painting.
The Australian Society of Engineers	Engineering.
The Wool and Skin Stores' Employees' Union of Australia.	Wool, skin, hide, tallow, and grain stores' employees.

Name of Organisation.	Industry.
Municipal Employees' Association of Australia ...	Municipal.
Federated Woollen Mills' Operatives' Union of Australia.	Woollen mills.
Rural Workers' Union of Australia... ..	Agricultural, viticultural, fruitgrowing, market-gardening, and dairying.
Federated Liquor Trade Employees' Union of Australasia.	Liquor trade.
Australian Tramway Employees' Association ...	Tramway.
Federated Straw Hatters' Association of Australia	Straw hat making.
Australian Builders' Labourers' Federation ...	Building.
The Rubber Workers' Union of Australia ...	Rubber.
The Jam, Sauce, Pickle, and Food Preserving Employees' Union of Australia.	Jam, sauce, pickle, and food preserving.
The Federated Millers and Mill Employees' Association of Australasia.	Grain milling.
The Federated Pastrycooks, Biscuits Makers, Ornamenters, and Flour and Sugar Goods Union of Australia.	Baking and flour and sugar goods.
United Firemen's Union of Victoria	Fire brigade.
Federated Gas Employees' Industrial Union ...	Gas production and sale.
The Musicians' Union of Australia... ..	Professional Musicians. (Agreement.)
The Australian Gardeners' and Nursery Employees Union.	Horticultural.
The Hospital and Asylum Attendants and Employees' Union.	Hospital and asylum employees.
Federated Clerks' Union of Australia	Clerical.
Australian Hairdressers, Wig-makers, and Hairworkers' Employees' Federation.	Hairdressing, wigmaking, and hairworkers.
The Federated Ironworkers' Association of Australia.	Iron and metal.
The Australian Journalists Association	Newspaper.
The Australian Match Workers' Union	Match and match-box making.
The Sugar Works Employees' Union of Australia	Sugar.
The Federated Brick, Tile, and Pottery Industrial Union of Australia.	Brick, tile, and pottery.
Hotel, Club, Restaurant, and Caterers' Employees' Union of New South Wales.	Hotel, club, and restaurant.
Australian Districts of Amalgamated Society of Carpenters and Joiners.	Carpentry and joinery.

The registration of one organisation, the Barrier Non-political Industrial Union of Broken Hill, has been cancelled.

For the Sydney Stage Employees' Association and the Musicians' Union of Australasia agreements have been made and registered under the Act.

For the Federated Agricultural Implement Makers conditions regulating the industry are set forth under the Excise Tariff Act.

AMALGAMATION OF UNIONS.

Very many of the oldest unions in New South Wales and in Australia have for years either been affiliated with, or formed, a central organisation, having branches in the various States. In recent years the process of linking up the unions in similar industries throughout Australia has proceeded rapidly till now but few of the New South Wales unions represent a purely local organisation. During 1910-11 considerable progress was made in this direction, and various conferences were held, the object being to promote uniformity of trade conditions and of wages throughout Australia. Organisations in process of federating include the following trades:—

General labourers.
Shop assistants.
Painters.
Plumbers.

Ropemakers.
Fire Brigade employees.
Hospital and Asylum attendants.

EFFECTS OF ARBITRATION.

This State has now had some twenty years' experience of the application of legislation to the solution of industrial problems, and the time seems opportune for a review of the various Acts which have been brought into force, and of the effects of their operation.

It has been shown that the laws in force in the first period, viz., the Trades Disputes Conciliation and Arbitration Act, 1892, and the Conciliation and Arbitration Act, 1899, were based on the principle of conciliation as the most effective instrument in the adjustment of grievances. The latter Act was short-lived, being replaced by the Arbitration Act of 1901, which remained in force for seven years of the second decade, viz., from 1901 to 1908. From this Act the principle of pure conciliation was omitted, its ineffectiveness having been shown, primarily in the lack of a legal tribunal to enforce the findings of the Court. The basis of the rejection of conciliation lay in the precedent established in New Zealand, where also its ineffectiveness was regarded as proven, and the principle was being abandoned in favour of arbitration. Into the Act passed by the State Parliament in 1901 was introduced a principle quite new to the earlier arbitration enactments, viz., the extension of the arbitration principle beyond the area of an existing dispute, to the regulation of wages and working conditions generally.

On account of the large number of cases promptly cited before the Court and the possibility of securing an injunction against the Court, there ensued a state of congestion ultimately culminating in considerable industrial unrest, when experience had proved the Act to be cumbered with numerous technicalities.

In the Industrial Disputes Act of 1908 an effort was made to combine the relatively simple procedure of conciliation courts with the compulsory powers of the Arbitration Court as to enforcement of findings and awards. But after some three years' experience, adverse criticism is now being directed against this the fourth attempt at settlement of the industrial problem. The most serious objection to the present Act is found in the multiplicity of boards and the danger of overlapping of awards, due to the entire absence of co-ordinating principles.

Yet, though each specific enactment made since 1892 may have failed of its desired effect, it is still a significant fact that the periods of industrial unrest, alternating with periods of quiet and freedom from disruption, have supervened precisely when there has been no machinery available for adjustment of difficulties or when the machinery available has failed to prove itself reasonably effective. Thus in the first half of the period following the passing of the Industrial Arbitration Act, 1901, only two strikes of more than three days' duration are recorded; in the latter half of the period between 1901 and 1908, after the Act had been challenged by innumerable writs of prohibition, and its inadequacy had been demonstrated, strikes were a much more frequent occurrence, *e.g.*, in the early part of 1908, from 1st January to 31st March, there were sixteen strikes of more than three days' duration. But, again, with the Industrial Disputes Act, 1908, which came into operation on 1st July of that year, a further period of comparative quiet ensued, and the number of serious strikes recorded was twenty-four in three years.

DERANGEMENTS TO INDUSTRY.

Interruptions to industry from such causes as fires and floods, the blocking of bar harbours, &c., necessarily supervene, but no reliable records are available to show the extent of the resultant suspension or slackening of industrial operations or the amount of loss or depreciation of perishable products. In regard to the manufacturing industry, it is shown that the average time worked in all classes of manufacturing is, approximately,

eleven and a half months per year, and an analysis of the details given shows the extent of the variations from that average. The following statement records the history of trade disagreements during 1910:—

1910.

January.—The coal miners' strike continued; work resumed in March.

February.—Lithgow Iron Works, dispute *re* working on pay Saturday; Broken Hill, Junction Mine, carpenters suspended work on account of the employment of non-unionists; coal lumpers, temporary suspension due to refusal to work baskets of half-ton capacity; cigar makers, difficulty regarding disclosure of addresses for registration purposes.

March, April, May.—No strikes or lock-outs recorded in city or suburbs. During May, several minor disputes occurred in the country; *e.g.*, British Australian Timber Co.'s employees, at Coff's Harbour, complained against the abolition of the breakfast interval, and were paid off; fillers, Vale of Clwydd Coal Mine, suspended work in protest against the filling rate fixed by the Wages Board (the dispute was referred to the Board); Clarence Tunnel Railway Works, navvies struck for payment of wages for a special public holiday.

June, July.—Neither strike nor lockout was recorded.

August.—Slaughtermen, Glebe Island Abattoirs, serious dispute regarding piecework rates; factory workers at a printing establishment, lock-out on cessation of work by youths, on account of a dismissal; Lockhart Railway Works, strike of navvies for increased wages; Commonwealth Oil Corporation, dispute regarding wages—carpenters quitted work, boilermakers agreed to arbitration; North Coast Railway Works, temporary cessation (three days), on account of certain dismissals.

September.—Slaughtermen's dispute continued, settlement reached in October.

October.—Newcastle wharf labourers and trimmers, dispute regarding conditions of loading.

November.—Railway Quarry, (North Goulburn), and city motor shops, trifling dislocation.

December.—Rockchoppers, demand for increased wages referred to Board.

During the half-year ended 30th June, 1911, the following disagreements were recorded:—

January.—Cockle Creek Sulphide Works, protest against retention of certain employee; Australian Gaslight Co.'s Works, Kent-street and Mortlake.

February.—Ore miners at Carcoar, involving smelters at Lithgow; settlement reached in April.

March.—Darling Island, wheat loading, 400 men idle for twenty-four hours, increased wages accorded; Lockhart-Clear Hills Railway Works.

April.—Portland Cement Works, temporary discharge of 300 men on account of refusal of wharf labourers (Sydney) to handle cement in bags.

May, June.—Neither strike nor lock-out was recorded.

STRIKES AND LOCK-OUTS.

The object of the industrial legislation which has been enacted in New South Wales is to render strikes unnecessary; but, though a large measure of success has resulted from the operation of the various Acts, the absolute elimination of strikes from industrial operations has not yet been secured.

Stringent provisions are embodied in the Industrial Disputes Act, 1908, and in its amendments, notably that of 1909, which was introduced towards the close of that year to cope with the extensive strike in the coal-mining industry. Heavy penalties are attached to any offence against the 1908 Act, as has been shown; but its discipline met with opposition from a section of the community to whom strikes appeal as the readiest means of redress of all grievances; and in spite of the prohibition and penalising of strikes and lock-outs, a strike was declared which involved all the coal-fields of the State—Northern, Southern, and Western.

To cope with the position, an amendment of the Industrial Disputes Act was passed in 1909 providing for the heavier penalty of twelve months' imprisonment for any attempt to instigate or aid in anything in the nature of a strike or lockout or discontinuance of work in any industry. Power is given to officers of police to enter buildings, by force if necessary, and to seize documents, when there is reasonable ground for the belief that such buildings are being used for the purpose of fostering the continuance-

of a strike or lock-out. Where the strike or lock-out relates to a necessary commodity, which is defined as including coal, gas, water, or any article of food, the deprivation of which may tend to endanger human life or cause serious bodily injury, the Act provides that meetings intended to foster such a strike or lock-out shall be illegal, and persons taking part in such meetings are liable to imprisonment for twelve months.

Further, a penalty of £500 may attach to any attempt to restrain the trade of the State in a necessary commodity, or to monopolise or combine against it to the detriment of the public.

In the past year several strikes occurred, but they were usually of short duration. The most noteworthy during 1910 was that of the slaughtermen at Glebe Island Abattoirs, the result of a dispute with the carcase butchers. This strike commenced in August and continued for about two months, when it was settled by the concession of the slaughtermen's demands. During the half-year ended 30th June, 1911, such dislocations as occurred, and which are listed on a subsequent page, were, comparatively, of a trifling nature.

The following table shows the strikes recorded since 1908:—

Strikes.

	Year.				Total.		Year.				Total.
	July-Dec. 1908.	1909.	1910.	Jan.-Aug. 1911.			July-Dec. 1908.	1909.	1910.	Jan.-Aug. 1911.	
Coal-mining ...	8	3	3	12	26	Cement-workers ...	...	1	...	...	1
Coal-carters	1	1	Biscuit Factory ...	...	1	...	...	1
Ironworks	3	...	1	4	Slaughtermen ...	...	...	1	...	1
Iron Mines	2	2	Smelting ...	...	...	...	2	2
Rockchoppers and	Gas Employees ...	...	...	...	1	1
Sewer Miners ...	1	...	1	2	4	Glass-works ...	...	...	...	1	1
Silver and Lead Mines	...	2	...	...	2	Shipping (Wheat	...	...	...	...	...
Coke-works	1	1	...	2	Loaders) ...	...	...	...	1	1
Engine-drivers	1	...	...	1	Wharf Labourers ...	...	...	...	1	1
Shale and Oil	1	...	...	1	Railway Construc-	...	...	...	...	...
Commercial Buggy-	tion Workers ...	...	...	...	1	1
drivers	1	...	...	1	Stove-makers ...	...	...	...	1	1
Carters (Railway	1	1	Cane-cutters ...	...	...	...	1	1
Works)	Total ...	9	15	6	28	58
Quarries	1	...	...	1						

This list of strikes appears somewhat formidable, but it is to be noted that the majority of them were of very brief duration, and comparatively unimportant, both as regards the area affected and the seriousness of the quarrel. This is evident from an inspection of the detailed statement respecting strikes and lock-outs which occurred in New South Wales during the period 1st July, 1908, to 31st August, 1911:—

Nature of Industry affected.	Duration.		Cause.	Nature of Settlement and Remarks.	Number of Employees concerned (approx.).
	From—	To—			
Coal-mining (South Bulli Wheelers).	1908. 11 Aug.	1908. 14 Aug.	Owing to full shift not being worked by miners, wheelers were paid by results, but contended that they should be paid for full shift.	Miners direct the wheelers to resume work.	27
Coal-mining (South Greta).	11 "	14 "	Withdrawal by management of promised pay of 3d. per ton for jiggling work.	Compromise; the terms of settlement not available.	120
Coal-mining (South Bulli Wheelers).	20 "	22 "	Refusal by management to withdraw summonses issued against certain wheelers for absenting themselves from work.	Returned to work; summonses issued against certain of the strikers. (See Item 7 of "Return of Prosecutions").	50

Nature of Industry affected.	Duration.		Cause.	Nature of Settlement and Remarks.	Number of Employees concerned (approx.).
	From--	To--			
Coal-mining (Lambton B. Mine).	1908. 1 Sept.	1908. 2 Sept.	Drivers demanded increased rate of pay.	Compromise effected; terms of settlement not available.	30
Coal-mining (Gunnedah).	2 Nov.	26 Nov.	Demand for increased wage, and other grievances.	Work resumed on Royal Commission being appointed to inquire into whole industry.	200
Coal-mining (Duckenfield Colliery).	5 Nov.	7 Nov.	Wheeler dissatisfied with commencing-hour of work, and with having to harness and unharness horses.	Miners decided to do the wheeling, whereupon wheelers resumed work.	200
Coal-mining (Borehole Colliery).	12 Dec.	12 Dec.	Alteration by management of the hours of work.	Men returned to work; matter further considered by management.	250
Coal-mining (South Greta Colliery).	18 "	19 "	Question of rates of pay, consequent on installation of machines.	Work resumed; complaint investigated by local committee.	300
Coal-mining (South Clifton).	1909. 28 April	1909. 1 May.	Demand for increased wages..	Returned to work ..	6
Coal-mining (Hetton Colliery).	3 May	5 May.	Men demanded own inspection as to deficient places; also objection to reduction of explosives; and as to additional pay for wet places.	Board appointed under Act to deal with conditions generally.	1,485
Coal-mining (South Clifton).	23 Sept.	25 Sept.	Non-payment by members of fines inflicted by union; employees refused to work with them until paid.	Resumed work on management stating they would insist on fines being paid. This strike merged into the succeeding one.	....
Coal-mining (Clifton).	7 Oct.	1910. 14 Feb.	Similar cause to preceding, combined with other grievances.	Board appointed under Act; men resumed work; award made by Board.	300
Coal-mines (Newcastle Mines).	8 Nov.	14 Mar.	Demand for increased wages, lesser hours, and other grievances.	Merged into general strike of coal-miners in Northern, Western, and Southern Districts of State. Prosecutions initiated, and leaders imprisoned. Men returned to work. See Items 6 and 11 in "Return of Prosecutions."	10,000
Coal-mining (Heddon-Greta Colliery).	1910. 1 Aug.	17 Oct.	Adoption by management of contract system of driving tunnels.	Conference between management and men; settlement arrived at.	300
Coal-mining (Vale of Clwydd Colliery).	24 Nov.	1911. 21 Jan.	Demand for increased pay ..	Conference between management and men; increase granted; resumption of work.	100
Coal-mining (South Clifton Colliery).	1911. 21 Mar.	24 Mar.	Demand for increased wages from 8s. 5d. to 9s. per shift.	Summonses issued against certain of the strikers; fines inflicted. See Item 8 of "Return of Prosecutions."	50
Coal-mining (Balmain Colliery).	4 April	19 May	Decision of management to change system of daily wage for 8 hours to 2s. 6d. per ton for 9 hours, bank to bank.	Voluntary Board appointed, and work resumed.	120
Coal-mining (Teralba Mines).	1 May	27 June	As a protest against reduction in selling price of coal.	Men returned to work on original tonnage rate paid. Proposed to submit new agreement to Board.	600
Coal-mines (Pelaw Main Colliery).	1911. 19 Mar.	1911. 25 May	Dispute between management and men as to working the top coal.	Compromise effected, and men returned to work.	600
Coal-mines (Ben Bullen Mine).	26 April	1 May	Dismissal of a miner for refusing to go to another place after his former place stopped.	Compromise effected, and resumption of work.	40
Coal-mines (Wallsend Colliery) (Wheeler).	13 July	18 July	Struck in sympathy with wheelers at Ellermere Vale Colliery who struck for increased pay from 2½d. per ton for round coal to same rate for all coal.	Compromise effected by payment of 2½d. per ton for all coal wheeled.	1,000
Coal-mines (Iron-works Colliery) (Lithgow).	17 July	.....	Dismissal of miner (lodge delegate) who absented himself from work to attend meeting of district delegates.	Still proceeding, and merged into general strike of employees at ironworks. Certain strikers prosecuted and fined.	500

Nature of Industry affected.	Duration.		Cause.	Nature of Settlement and Remarks.	Number of Employees concerned (approx.).
	From—	To—			
Coal-mines (Coal Cliff Colliery).	1911. 9 Aug.	1911. 11 Aug.	Wheelers struck against dog watch shift, and other matters.	Settlement arrived at, and work resumed.	30
Coal-mines (New Lambton Mine).	10 Aug.	.....	Owing to management enforcing "dirt scales."	No information re settlement (if any).	15
Coal-mines (Wallsend Colliery).	16 Aug.	.....	Dispute between management and men as to wheeling timber into the mine.	Still proceeding.	600
Coal-mines (Irondale Colliery).	25 Aug.	....	Dispute as to payment for hewing rate.	Still proceeding.	50
Coal-carters (Sydney).	30 May	30 May	Owing to dismissal of a carter	Dismissed man reinstated; work resumed within 1½ hours of stoppage.	40
Ironworks (Phoenix Ironworks).	1909. 12 Feb.	1909. 23 Feb.	Men contended against labourers being put on to do boiler-makers' work.	Men returned to work unconditionally.	54
Ironworks (Mendowbank Works).	22 Feb.	24 Feb.	Refusal of demand of employees for reinstatement of dismissed employee.	Men returned to work unconditionally.	50
Ironworkers (Lithgow Smith Mill).	31 Mar.	8 April	Decision by company to reduce number of "roughers."	Men returned to work pending investigation.	40
Iron-mines (Carcoar).	1911. 7 Feb.	1911. 8 Mar.	Men demanded increased wages. The strike spread from the mines to the iron mills at Lithgow.	Prosecutions initiated; fines inflicted. See Item 5 in "Return of Prosecutions." Conference arranged, and men returned to work.	600
Iron-mines (Tallewang).	27 June	27 June	Demand by jumper for increased pay.	Work resumed on grievance being adjusted.	40
Iron-works (Lithgow).	28 July	.....	Men in ironworks refused to use coal gotten by non-union labour employed in place of men who went on strike. (See also under heading "Coal Mines—Ironworks Colliery—Lithgow").	Proceeding	500
Rockchoppers and Sewer miners.	1908. 23 Oct.	1908. 16 Nov.	Refusal of demand made by men for dismissal of foreman	Leaders prosecuted, and work resumed. (See Item 9 in "Return of Prosecutions").	500
" "	1910. 20 Nov.	1910. 13 Dec.	Demand for increased pay from contractors refused.	Arrangements made to cancel contract, State to undertake work.	30
" "	28 Dec.	1911. 7 Jan.	Demand for increased pay refused.	Work resumed; matter referred to Board appointed under Act.	12
" "	1911. 9 Mar.	.....	Dispute as to payment for working in wet places.	Board granted by amendment of award increased rate of 2d. per hour for working in wet places, and defined procedure for determining whether a place is wet.	15
Silver and lead Mines (Broken Hill).	1909. 2 Jan.	1909. 25 May	Refusal by management to allow men to work on 1st Jan., 1909, and in consequence men refused to work on 2nd Jan., 1909.	Award made by Court of Conciliation and Arbitration.	3,000
" "	1 Mar.	16 Mar.	Dismissal of certain men for refusing to work with non-unionists.	Men returned to work. Dismissed men reinstated on guarantee as to giving notice re quitting work.	70
Coke-works (Bellambi).	13 Jan.	12 Feb.	Demand for increased pay refused.	Compromise effected, and work resumed.	12
Coke-works (Lithgow).	1910. 12 Sept.	1910. 14 Sept.	" " " " " "	" " " " " "	20
Engine-drivers (Newnes).	1909. 16 Feb.	1909. 27 Aug.	" " " " " "	" " " " " "	....
Shale and Oil (Newnes).	20 Feb.	27 Aug.	" " " " " "	Merged into succeeding strike.	400
Commercial Buggy-drivers.	8 Mar.	10 Mar.	Demand for increased pay....	Private Arbitration Board agreed to; settlement effected, and work resumed.	40
Carters (Railway Works, Wariwilda).	1911. 10 May	1911. 14 May	Proposed reduction in rate of pay.	Boys returned to work on same conditions. Places of strikers filled by other men being engaged.	14

Nature of Industry affected.	Duration.		Cause.	Nature of Settlement and Remarks.	Number of Employees concerned (approx.)
	From—	To—			
Quarries (Ryde)	1909. 30 Mar.	1909. 31 Mar.	Demand for increased pay....	Returned to work and increased demands granted.	20
Cement-workers (Portland).	3 Sept.	6 Sept.	" " "	Compromise effected, and work resumed on understanding that Board would be appointed, the award of which would be retrospective.	550
Biscuit Factory.	9 Dec.	11 Dec.	Demand for increased pay ..	Ringleaders prosecuted and fined. (See Item 10 in "Return of Prosecutions").	20
Slaughtermen (Glebe Island).	1910. 8 Aug.	1910. 18 Oct.	Refusal of men to work piece-work.	Amicable settlement and resumption of work.	300
Smelting (Cockle Creek).	1911. 12 Jan.	1911. 3 Mar.	Refusal of management to dismiss non-unionist.	Investigation of matter in dispute by Industrial Registrar as arbitrator. Resumption of work after decision given. General award made by Board appointed under Act.	400
Smelting (Port Kembla).	21 July	29 July	Management refused to re-instate man removed from one position to another, involving loss in wages of 6d. per day.	Work resumed. Question to be considered by Board appointed under Act.	300
Gas Employees..	13 Jan.	14 Jan.	Dismissal by Company of employee—Secretary of Employees' Union.	Men return to work on matter being investigated by arbitrator agreed to.	1,000
Glass Works ..	1 Feb.	4 Feb.	Demand for increased wages by boys.	Boys returned to work on same conditions.	30
Shipping (Wheat Shippers, Darling Island).	13 Mar.	14 Mar.	Demand for increased wages..	Terms conceded, and work resumed.	750
Wharf-labourers.	2 May	6 May	Refusal to load cement unless in paper-lined bags, so as to be dust-proof.	Request granted; work resumed with increased pay.	710
Railway Construction Workers (Glenbrook).	20 July	21 July	Demand for pay for time lost by wheelers in breaking rock, after being blasted in pieces small enough to load and cart away.	Settled, and immediate resumption of work.	300
Stovemakers ..	25 July	14 Aug.	Refusal to work piecework ..	Piecowork abolished, and work resumed.	250
Cane-cutters (Grafton).	31 July	3 Aug.	Increased pay and more rations demanded.	Resumed work on old allowance of rations and extra punting allowance granted.	126

Lock-outs.

Nature of Industry affected.	Duration.		Cause.	Nature of Settlement and Remarks.	Number of Employees concerned (approx.)
	From—	To—			
Ironworks (Lithgow).	1908. 9 July	1908. 16 Aug.	Closing of works by management with a view to compelling employees to accept terms of employment.	Management prosecuted. (See items 1 and 2 in "Return of Prosecutions"). Men resumed work and Board appointed under Act.	500
Ironworks (Lithgow).	20 Aug.	21 Aug.	Men in coal-mines not allowed to start work owing to refusal to work on Pay Saturday, thereupon works closed down.	Management prosecuted. (See Items 3 and 4 in "Return of Prosecutions").	500

PROSECUTIONS.

Particulars of prosecutions for lock-outs and strikes undertaken in terms of the principal Act and its amendments are shown in the following statement, the total prosecutions being two each for strikes and lock-outs for

the year ended 30th June, 1909, three for strikes and two for lock-outs for 1909-1910, and four for strikes in 1910-1911:—

No.	Date.	Nature of Prosecution.	Industry.	Particulars re Defendants.	Result of Prosecution (Fine or Imprisonment).	Remarks.
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Particulars as to Lock-outs, under Section 42 of Act No. 3 of 1908.

1	1909. 2 March	Lock-out ..	Iron Works, Lithgow.	1 Company ..	£50	Fine paid.
2	2 March 1910.	Aiding in Lock-out.	" "	" ..	£10, or 7 days	Fine remitted.
3	9 March	Lock-out ..	Coal-mining (Western).	" ..	£31 10s., or 1 month.	Fine paid.
4	Do.	" ..	" "	" ..	£2 2s.	"

Particulars as to Prosecutions for Strikes, under Section 42 of Act No. 3 of 1908.

5	1911. 24 March	Strike ..	Iron Works (C. and G. Hoskins, Ltd.).	Thirteen (13) defendants.	£3 3s., or 21 days each.	Application for reduction of penalties under consideration by Crown
6	Do.	" ..	" "	Thirty-four (34) defendants.	£5 5s., or 1 month each.	" " "
	Do.	" ..	" "	Seventy-two (72) defendants.	70 at £4 4s., or 28 days each; 2 at £1 1s., or 7 days each.	" " "
6	1909. 29 Dec...	Instigating to strike.	Coal-mining (Newcastle).	Twelve (12) defendants.	£100, or 2 mths. each.	Imprisoned.
7	1908. 11 Sept.	Strike ..	Coal-mining (South Bulli)	Forty-three (43) defendants.	1s., or 24 hours each.	Fines paid.
8	1911. 28 April..	" ..	Coal-mining (South Clifton wheelers).	Fourteen (14) defendants.	£3 3s., or 21 days each.	Upon application to Crown for reduction of penalty, fine reduced in 11 cases to £1 each, and in 3 cases to 7s. 6d. each. Fines paid in 3 cases; action stayed in remainder.
9	1908. 2 Nov. ...	Instigating to strike.	Sewer Miners..	Four (4) defendants.	£30, or 6 weeks; £40, or 2 months; £30, or 6 weeks; £30, or 2 months.	Men imprisoned. Proportional part of fine paid.
10	1909. 14 Dec...	Strike ..	Biscuit Factory	Three (3) defendants.	£3, or 8 days each.	Fines paid.

Particulars as to Prosecutions under Section 42b of Act 26 of 1908, as amended by Section 4 of Act 26 of 1909.

11	1910. 27 Jan...	Taking part in meeting for purposes of aiding in continuance of strike.	Coal-mining (Illawarra).	Four (4) defendants.	One, 12 months imprisonment; three, 8 months imprisonment.	Imprisoned.
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CAUSES OF STRIKES.

An analysis of the proximate causes of strikes, as set down by the participants, reveals that the majority of strikes in the past three years have been the result of disagreement as to wages and rates of payment. Following is a statement showing strikes, as recorded in the list given previously, classified according to proximate cause, viz.:—

Proximate Cause.	1908 (Half-year to 31 Dec.).	1909.	1910.	1911 (to Sept.).	Total.
Question of hours ...	3	1	...	2	6
" wages ...	4	9	4	13	30
" persons ...	2	3	1	7	13
Sympathy ...	...	...	...	1	1
Miscellaneous ...	...	2	1	5	8
Total ...	9	15	6	28	58

TIME LOST THROUGH STRIKES.

From the records previously quoted as to strikes which have occurred in the past three years the following particulars are deduced, as to the time lost to the strikers through the strike, and further, taking the approximate numbers of employees concerned, the total number of days work lost to the industry:—

	1908 (Half-year to 31 Dec.)	1909.	1910.	1911 (to 31 Aug.)
Strikes... ..	9	15	6	28
Period of strike—days	61	460	521	775
Men affected	1,647	5,747	10,950	8,792

In the 1911 figures are included details, up to 31st August, 1911, of strikes then subsisting, and the number of strikes allotted to each year has been taken according to the date of termination of the strike. The period of loss in 1910 was more than double the period of loss in 1909, and for the ten months of 1911 the period was even greater than for the whole year 1910.

STRIKES ACCORDING TO INDUSTRIES.

In the following table the fifty-eight strikes previously recorded between July, 1908, and August, 1911, are grouped according to the industry concerned, and the nature of the settlement reached:—

Industry.	Total number of Strikes.	Nature of Settlement.										
		Arbitration.	Unconditional.	Resumption with inquiry.	Resumption with increase of wage.	Resumption with adjustment.	Compromise.	Prosecution.	Merger.	Reinstatement.	Other.	Proceeding.
Coal Mines	26	...	4	6	2	...	6	2	3	...	1	2
Iron Works	4	...	2	1	...	...	...	...	...	...	...	1
Rockchopping	4	...	...	1	...	...	1	1	...	...	...	1
Iron Mines	2	...	...	...	...	1	...	1	...	...	...	...
Silver and Lead Mines	2	1	...	...	...	...	...	...	...	1	...	...
Shale and Oil Works	2	...	...	...	...	...	1	...	1	...	...	...
Coke Works..	2	...	...	...	...	...	2	...	...	...	...	...
Railway Works	2	...	...	...	...	1	...	...	...	...	1	...
Smelting Works	2	1	...	1	...	...	...	...	...	...	...	...
Coal Carting	1	...	...	...	...	...	...	...	...	1	...	...
Commercial Buggy Driving	1	...	1	...	...	...	...	...	...	...	...	...
Quarrying	1	...	...	...	1	...	...	...	...	...	...	...
Cement Works	1	...	...	1	...	...	...	...	...	...	...	...
Biscuit Factory	1	...	...	...	...	...	...	1	...	...	...	...
Slaughtering	1	...	...	...	...	...	1	...	...	...	...	...
Gas Works	1	1	...	...	...	...	...	...	...	...	...	...
Glass Works	1	...	1	...	...	...	...	...	...	...	...	...
Shipping—												
Wheat Loading	1	...	...	...	...	1	...	...	...	...	...	...
Wharf Labouring	1	...	...	...	1	...	...	...	...	...	...	...
Stovemaking	1	...	...	...	...	1	...	...	...	...	...	...
Cane-cutting	1	...	...	...	...	1	...	...	...	...	...	...
Total	58	3	8	10	4	4	12	5	4	2	2	4

It will be seen that nearly 50 per cent. of the strikes recorded affected the coal-mining industry. Of the total (twenty-six) four were terminated by resumption of work without any recorded alteration in conditions; in six cases work was resumed after an inquiry or the promise of an inquiry; in six cases also a compromise was effected. Of the cases subject to inquiry,

one investigation took the form of a royal commission, two were determined by wages boards appointed under the Industrial Disputes Act, and one was submitted to a voluntary board for adjudication; in the other two cases inquiry was made by a local committee or the management.

Of the total number of strikes recorded, viz., fifty-eight, it is noticeable that twelve were settled by compromise, with concession of part of the strikers' demands, ten were subject to inquiry, eight resulted in adjustment of the particular grievances, or concession of an increased wage, while eight apparently failed to secure any of their objects, and five resulted in prosecutions, while four merged into more extensive strikes.

UNEMPLOYMENT.

Unemployment in any community is traceable to one of three causes:—

- (a) Disability to perform work.
- (b) Inability to find employment.
- (c) Compulsory cessation of work, arising from trade disputes.

In the first category are found those who from incapacity incidental to extreme youth, old age, or mental or physical unfitness, are dependent on others for subsistence. Necessarily relief not obtainable for such types from assurance, either private or national, must be sought from eleemosynary institutions.

The third cause involves considerations of strikes and lock-outs, concerning which many theories and plans have been broached and ventilated since labour questions have become the subject of scientific inquiry. The modern method of treatment of this cause is to be found in legislative enactments constituting authoritative tribunals for free inquiry and awards in settlement.

The above two causes present problems which admit of solution, although remedies have not yet been found which are acknowledged universally to be successful. Only with respect to the second cause, dearth of work, or inability to find it, is it to be admitted that real difficulty exists as to resolution of the problem. The more the question is studied, the more plainly does it appear that a multitude of factors are at work in our civilisation, of which the existence is admitted, but the remedial measures are not so readily perceptible. And while the much desired means of prevention of this cause of unemployment are being sought, it is eminently desirable to relieve the individual sufferers from its effects.

To afford relief to those who are able-bodied, but who cannot obtain employment, the State Labour Bureau was instituted in the year 1900. The objective of this Bureau is to secure a proper distribution of labour according to the urgency of the requirements of employer and of employee, thus relieving the congestion in one place by regarding the scarcity in another locality.

A free registry office for men having been established in Sydney, with agencies, numbering some 200, in the principal country centres, the supply of labour is regulated, and assistance given to applicants to proceed to employment available in particular localities.

Registration to be effective must be renewed for particular classes of work once during each month, and from the list of eligible persons the labour wanted is drawn as required.

Labour is graded under three headings—Professional, Skilled Labourers, and General (or unskilled) Labourers. On the 30th June, 1911, the numbers on the list of men eligible were as follows:—

Professional and Clerical	...	...	...	...	...	...	8
Skilled Labourers and Artisans	...	...	...	...	...	...	176
Unskilled Labourers...	...	...	...	...	...	...	55
Total	...	...	...	...	...	...	239

During the year 1910, 3,599 men were assisted and sent to work; during the half-year ended 30th June, 1911, 1,770 men were so assisted. The following figures indicate on broad general lines the type of employment found for them:—

	Year 1910.	Half Year ended 30 June, 1911.
Private Work	2,221	1,141
Government Work	242	75
Labour Farms	1,000	423
Instructional Farm	136	131
Total	3,599	1,770

The functions of the Labour Bureau, which includes a Labour Depôt and a Casual Labour Farm, have been extended beyond the scope of a labour exchange merely. At Randwick a farm has been established where men unable to maintain themselves are given lodging, food, and a small money allowance in payment for work. The period of residence may not exceed three months, and whenever possible, the men are sent to employment with private persons. At Pitt Town men are received on similar conditions and may acquire some training to fit them for various kinds of employment.

The Government Training Farm at Pitt Town is also under the direction of the State Labour Bureau. At this institution city lads may qualify for farm work, a course of three months being provided free of cost. On the completion of their course students are assured of immediate engagements, as the demand for them is greatly in excess of the supply.

At the end of February, 1911, a registration bureau for unemployed was opened in Newcastle, as a branch of the Labour Bureau, to enable the Government to assist in relieving distress which was said to prevail chiefly among colliery workers. The operations of the Newcastle Office were as follows:—

Registrations—			Men sent to work—			Government. Private.	
Colliery Workers	...	661	Locally	...	569	1	
Others	...	944	In other parts of the State	...	80	39	
		1,605			649	40	
							689

Of the total registrations, 743 represented single men who could readily find employment on the North Coast Railway work. The second months' operations being on a very small scale, the branch was closed after the end of April.

The Bureau collects and disseminates information concerning labour conditions in all centres throughout the State. Reports received from various agents, numbering some 200, for the year 1910 show that in the primary industries agricultural and pastoral employment was very satisfactory; mining was affected by the coal strike in the earlier months, and by the low prices of metals.

The statement previously given shows that, though the Bureau is prepared to deal with men of all classes, its main business concerns the distribution of manual labour, skilled or unskilled. A friendly society, the Sydney Clerks and Warehousemen's Benefit Association, endeavours to regulate clerical labour, to which body the greater portion of the unemployed of the professional class would gravitate.

The following figures show the extent of out-of-employment benefits granted to members of the Association:—

Year.	Mean Membership.	Aggregate Benefits.	Year.	Mean Membership.	Aggregate Benefits.
	No.	£		No.	£
1905	362	261	1908	579	330
1906	456	245	1909	706	211
1907	491	212	1910	775	231

TRADE UNIONS AND UNEMPLOYMENT.

Statistics relating to unemployment, as affecting Trade Unions, were collected for 1910. The general trend of these records indicates that the degree of unemployment amongst the union members was not extensive, but it is to be noted that this was the first year of collection of the figures, and that only 78 out of a total of 174 unions reported. Following are the records gathered from the reports relating to unemployment in the various groups of industries at the end of 1910, viz. :—

Group.	Unions Report- ing.	Members.	Period.			Members Unemployed—Cause.			
			Under 2 Weeks.	Over 2 Weeks.	Total.	Lack of Work.	Acci- dent.	Sick- ness.	Other.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Building	3	2,334	2	65	67	67	...	...	...
Clothing	2	1,986	...	94	94	94	...	...	...
Engineering and Metal	7	3,410	53	22	75	73	1	...	1
Food and Drink ...	9	3,466	326	242	568	438	...	...	130
Land Transport ...	4	5,849	49	394	443	326	72	45	...
Mining	3	1,549	9	15	24	24	...	...	...
Printing, &c.	1	5,332	...	300	300	300	...	...	...
Shipping, &c.	1	908	18	9	27	27	...	...	...
Manufacturing, n.e.i...	5	1,893	20	186	206	203	...	3	...
Other industries ...	2	479	...	10	10	10	...	...	...
Total	37	27,206	477	1,337	1,814	1,562	73	48	131

From forty-one other unions, reports were obtained to the effect that no members were out of employment at the end of the year, but as these unions have not been grouped as to industries it is not possible to relate the number of members unemployed in each group to the total membership concerned in that group.

SHORTAGE OF LABOUR.

To investigate the diverse views set forth in regard to labour conditions within the State a Royal Commission was authorised on 9th June, 1911, with power to inquire into the following matters:—

- (1) The alleged shortage of labour in the State of New South Wales.
- (2) The hours and general conditions of employment of female and juvenile labour in factories and shops, and the effect on such employees.
- (3) The cause of the decline in the apprenticeship of boys to skilled trades, and the practicability of using technical and trade classes as aids to, or substitutes for, apprenticeship.

In October, 1911, an interim report was presented to Parliament, showing the conclusions reached from the evidence presented up to date upon the first point of investigation, viz., the alleged shortage of labour in the State. The evidence supported the truth of the allegation as regards skilled labour, the shortage under that head being estimated at 3,247 workers, in the particular sections investigated, viz. :—

	Number required.	
Artisans—Metropolitan area	...	1,712
Country	...	210
Requirements of Public Bodies	...	775
Women workers	...	550
Total	...	3,247

As employees' representatives throughout the State generally denied the truth of the shortage alleged by employers, the inquiry was resolved to a great extent into a case as between these parties with the proviso that, in order to conserve the interest of present employees, importation must be absolutely restricted to the provable needs of the State.

The general conclusion of the Commission that there exists a great and permanent need for the introduction from abroad of trained and competent workers for most of the skilled trades, and of the manufacturing industries, is ascribed to natural causes; the immediate cause of the congestion being the relatively rapid accumulation of wealth due to good seasons, as compared with the slower but steady growth of population. Figures in regard to this increase in material prosperity have been given in other parts of this Year Book, but it seems opportune to quote here some figures upon which the Commission based its conclusion, viz. :—

	1900.	1910.	Increase per cent., 1900-1910.
Population	1,364,590	1,639,722	20
	£	£	
Value of Agricultural Products	5,609,437	10,908,320	94
Do Wool produced	7,676,800	15,708,090	105
Savings Bank Accounts	10,901,382	22,453,923	106
Bank Deposits	32,233,591	51,893,524	61
Foreign Exports—Produce of N.S.W. ...	11,710,755	27,677,088	186

The most sensitive gauge of the diffusion of the great wealth of the country was found in the amount of Savings Bank deposits as the natural treasury of people of moderate means. Figures quoted in Part "Private Finance" show that the average amount per depositor has increased by £6. 9s. 2d. in the period reviewed by the Commission, and the point was taken that the accumulations call for expenditure and investment in varying degrees of extent and urgency, and so require an increase of the labour force of the community. Hitherto State assisted immigration has been restricted, as has been shown, to the introduction of farmers, agricultural labourers, and domestic workers, and their families; and the Commission now demonstrates the necessity for increasing the influx of assisted and of voluntary immigrants, due regard being paid to the fact that within limits set by the productive and consuming power of the community, every efficient new worker creates, as well as performs, work; but to outrun those limits lays the present labour force open to loss in specific wages paid, in hours and conditions of work, and in continuity of employment. In conducting the inquiry the Commission assumed that all existing conditions must be maintained, or that no alterations would be permitted in the direction of relaxation of restrictions and prohibitions, *e.g.*, on child labour. The trades investigated are dealt with seriatim; the principal coming under the classification of Building Trades, Iron Trades, and Women Workers.

The branches of the building trades investigated included rockchoppers, quarrymen, masons, bricklayers, carpenters and joiners, plumbers, plasterers, and painters. With regard to rockchoppers and sewer-miners, quarrymen and masons, and bricklayers, the Commission found no opposition to the employers' assertion of a serious shortage; of painters the available force appeared adequate for all requirements. In the iron trades it seems that private work and Government workshops are interdependent to a very great extent. Particularly in respect of boilermakers must a distinction be made between the two classes of work. Projected works at the Government Dockyard are hampered by the difficulty of securing material from local private works in accordance with contracts, and also by the difficulty of getting the necessary labour to cope with the work in hand and in prospect.

A considerable proportion of the private trade consists of repair work, which is peculiarly fluctuating in its nature; but for land work, such as girder and locomotive boiler and steel rail making, there is no surplus of labour; as regard fitters there is no proved shortage; of moulders and shipwrights (for wooden ships) a present shortage was proved.

In the electrical trades a remarkable extension of work, both of private and public bodies, has been fairly met by voluntary immigration, particularly from England, where the trade is highly specialised, but somewhat slack. Necessarily, in the circumstances, the incoming tradesmen have not the general knowledge required in the local trade, but they adapt themselves quickly to their new conditions.

In the brick and cement making, boxmaking, and timber trade there is no evident deficiency of labour, but for pottery works a few qualified hands are required to enable the local trade to be developed. Similarly, for the coach-building trade, notably body-building for the motor trade, labour is required.

The different industries and the extent of the shortage in each are summarised as follow:—

EXTENT OF THE LABOUR SHORTAGE.

ARTISANS—METROPOLITAN AREA.				RAILWAY CONSTRUCTION AND MAINTENANCE.			
Rockchoppers	...	...	400	Bricklayers	...	...	23
Masons	...	...	100	Carpenters and Joiners	...	...	61
Quarrymen	...	...	40	Bridge Carpenters	...	...	31
Bricklayers	...	...	300	Rough Carpenters	...	...	10
Carpenters and Joiners	...	...	200	Painters	...	...	60
Plumbers	...	...	50	Brush Hands	...	...	30
Plasterers	...	...	150	Plumbers	...	...	14
Boilermakers	...	...	100	Wood Machinists	...	...	2
Ironmoulders	...	...	60	Bridgeplaters	...	...	4
Shipwrights	...	...	40	Riveters	...	...	12
Wood Machinists	...	...	30	Riveters' Assistants	...	...	12
Joiners (timber yards)	...	...	50				
Bodymakers and Trimmers	...	...	100	Total	...	...	259
Jewellers	...	...	60				
Glassblowers	...	...	12				
Stovemoulders	...	...	20				
Total	...	...	1,712				
ARTISANS—COUNTRY.				WOMEN WORKERS.			
Bricklayers	...	...	75	Boot Machinists	...	...	100
Carpenters	...	...	50	Bootfitters	...	...	50
Plumbers	...	...	15	Mantle and Costume Machinists	...	...	100
Plasterers	...	...	40	Clothing Machinists	...	...	150
Bodymakers	...	...	15	Shirt Machinists	...	...	40
Trimmers	...	...	15	Straw Hat Machinists	...	...	40
Total	...	...	210	Paper Boxmakers	...	...	30
				Tent Machinists	...	...	20
				Weavers	...	...	20
				Total	...	...	550
REQUIREMENTS OF PUBLIC BODIES.				TOTAL.			
Sydney Harbour Trust—				Artisans (metropolitan area)	...	1,712	
Carpenters	...	...	100	Artisans (country)	...	210	
Government Dock—				Requirements of Public Bodies	516		
Boilermakers and Riveters	...	...	400	Railway Construction	...	259	775
Ironmoulders	...	...	16	Women Workers	...	...	550
Total	...	...	516				3,247

SEASONAL SLACKNESS.

In the summer-time the city and suburbs suffer to a certain extent from seasonal slackness. For instance, in January, and even into February, slackness and half-time working are to be anticipated in trades such as order tailoring, mantle, and costume making. But such slackness is the necessary corollary to high-pressure work and overtime, which usually prevail in the

weeks before the Christmas season. In the clothing trades, manufacturers for retail shops have to face the difficulty of rush orders, it being the practice of such shops to allow their stocks to run out entirely before placing fresh orders. Further, the practice of indenting surplus English stocks to catch the corresponding Australian season's trade causes some uncertainty regarding estimates of local requirements. In the tailoring trade, and especially in the highest class work, the on-and-off character of the employment is particularly apparent.

INTERMITTENCY.

The question of continuity of employment affects particularly the building trades, and in a less degree seasonal occupations.

As regards the building trades, the reserves of workers cannot, under normally favourable conditions, be great; but, on the other hand, no system of organisation yet devised can adjust the volume of work to the waiting labour force so as to ensure absolute continuity of employment while obviating delay in the fulfilment of contracts. But, so long as the general volume of trade is maintained, no abnormal intermittency need be feared. And projected works, quite outside the domain of private enterprise, promise the maintenance of the general average volume of trade.

UNSKILLED LABOUR.

Unskilled labour generally is considered to be readily obtainable; the only type of such labour which is deficient being for navvying on railway construction works. The degree to which unskilled labour is available may be measured to a certain extent by the records of the State Labour Bureau previously shown. The efforts made to render the mass of such labour more efficient are also noted in connection with the Labour Bureau. The Shortage of Labour Commission, merely commenting upon the proved abundance in this division of the labour force, restricted its inquiries chiefly to the skilled trades in the Metropolitan and suburban areas, investigations as to country districts being curtailed in view of the necessary delay and expense likely to be involved.

INCOMPETENCY.

Among employers generally a difficulty in securing competent men in the various trades tends to induce the employment of men who are not really skilled tradesmen; but, on the other hand, the necessity of paying such tradesmen award rates militates against their retention for any length of time.

WOMEN WORKERS.

As shown in Part "Manufacturing Industry," the proportion of females to males among factory employees is rising rapidly, the textile trades having become almost exclusively women's trades; and particularly in these trades has a shortage of efficient labour been demonstrated. But, though the organisation of women workers is proceeding, it is still true that for the most part women workers are unprotected, either by unions or by awards of an industrial tribunal; and partly through the absence of such protection the wages paid in many grades of factory work done by women do not reach the level of an independent living wage. Thus the effects of any serious industrial disturbance would be felt promptly and distressingly by women workers generally, but particularly by those without family ties.

The Commission on the Shortage of Labour advocates stringent rules as to selection of suitable immigrants and the enforcement of guarantees from employers wherever shortages of labour are proved.

In the boot and the straw-hat trades the output from local factories is apparently limited not by potential consumption but by the available labour supply. It seems that, for the straw-hat trade, machinists drawn from the

boot trades have readily adapted themselves to their new conditions; while in the boot trade, the difficulty of procuring labour lies in the fact that there has hitherto been no organisation of female operatives in this industry, and consequently, there being no award for female employees, the wages paid in New South Wales are less than the rates paid for similar classes of work in other States where the industry has been for years subject to regulation.

Conditions somewhat similar to those prevailing in the boot trade are found in the various branches of the clothing trades, but with the distinction that in the latter case there is greater risk of intermittency or occasional slackness on account of the seasonal character of the trade.

OUTWORKERS.

Under section 14 of the Factories and Shops Act, 1896, occupiers of factories are required to keep and to supply to the factory inspectors full records regarding outworkers employed. In the Victorian Act of 1911 a similar provision has now been made, and it is expected will result in the registration of large numbers of outworkers. In New South Wales the number of outworkers reported to the inspectors is not available.

THE LABOUR SHORTAGE IN VICTORIA.

Simultaneously with the call for more labour in New South Wales the demand was raised in Victoria for additional workers in various trades. To discuss the matter, a conference was called of representatives of the Chamber of Manufactures for the employers, of the Trades Hall Council for the employees, and of the Labour Bureau. Statements showing the number of workers required in each trade were submitted by the employers' representatives, and discussed before the conference. Important deputations, *e.g.*, from the Master Builders' Association, assisted to demonstrate the position of skilled trades, and, after some deliberation, it was arranged that the requirements of each trade should be investigated and reported upon by the Labour Bureau. The report ultimately presented dealt exhaustively with the claims made, and favoured the importation of 975 male artisans in various trades, excluding the building trades.

The following table shows in full detail the requirements submitted to the conference; the alteration made after investigation; the additional prospective requirements; the number recommended; and the number finally adopted by the conference.

IRON TRADES.

Group.	Sub- mitted.	Alter- ation.	Ad- ditional.	Recom- mended.	Adopted.
Boilermakers	227	147	75	140	140
Blacksmiths	98	74	55	75	75
Patternmakers	2	84	72	5	...
Fitters	65	66	53	80	80
Machinists	35	...	39	60	60
Moulders	66	102	40	100	100
Turners	33	41	12	30	30
Tinsmiths	17	14	...	10	10
Sheet-metal workers	18	35	5	50	50
Plumbers ... ..	...	...	6	6	...
Brass-finishers	10	10	4	8	8
Brass-polishers	1	1	...	...	...
Boltmakers	10	10	...	6	...
Furnacemen	7	7	...	5	...
Stove and oven makers, &c.	14	6	...	6	6
Bedstead-makers	5	5	...	3	...
Totals	608	602	291	584	559

Group.	Sub- mitted.	Alter- ation.	Addi- tional.	Recom- mended.	Adopted.
FURNITURE TRADES.					
Cabinetmakers	63	53	...	45	45
Chairmakers	30	18	...	15	16
Wicker furniture makers	18	16	...	12	8
Upholsterers	32	17	...	12	12
French-polishers	10	...	...	...	...
Totals	153	104	...	84	80
CARRIAGE BUILDING TRADES.					
Body-makers	11	10	...	10	10
Coachsmiths	8	10	...	6	6
Coach trimmers	4	4	...	3	3
Carriage painters	3	3	...	3	3
Wheelwrights	5	8	...	6	6
Totals	31	35	...	28	28
SAW-MILLING TRADES.					
Carpenters (door and sash makers)	21	21	...	15	18
Joiners	35	23	...	18	15
Machinists	17	7	12	12	12
Sawyers	6	1	...	...	...
Glaziers	2	2	...	2	2
Totals	81	54	12	47	47
BOOT TRADE.					
Bootmakers, males	71	6	...	47	...
*Contingent on sufficient female labour being obtained.					
CYCLE TRADES.					
Enamellers	3	3	...	3	3
Metal polishers	10	*10	...	8	8
Electroplaters	1	*1	...	1	1
Totals	14	14	—	12	12
*Contingent on enamellers being obtained.					
VARIOUS TRADES.					
Brushmakers	3	10	...	8	8
Bookbinders	4	4	...	4	4
Cigarmakers	10	10	...	10	10
Cork-cutters	20	20	...	20	...
Electric-light hands	40	40	...	3	30
Electroplate makers and stampers	6	6	...	6	06
Rubber workers	112	112	...	42	60
Glass-bottle makers	20	20	...	20	20
Felt hatters	12	33	...	20	...
Jewellers	25	...	...	20	...
Ammunition makers	12	...	...	20	...
Totals	264	255	...	173	138
SUMMARY (Male Labour).					
Iron trade artisans	608	602	291	584	559
Furniture trades	153	104	...	84	80
Carriage building trades	31	25	...	28	28
Saw-milling trades	81	54	12	47	47
Boot trade (male labour)	71	6	...	47	...
Cycle trades	14	14	...	12	12
Various trades	264	255	...	173	138
Totals	1,222	1,070	303	975	864

FEMALE LABOUR FOR VARIOUS TRADES.

Submitted.	Alteration.	Additional.	Recommended.	Adopted.
2,184	1,980	...	1,000 to 1,200	1,000 to 1,200

INDUSTRIAL LEGISLATION.

The attention given in recent years, by means of Parliamentary enactments, to economic measures for the advancement of the industrial classes of the community, has resulted in an industrial code which is sufficiently comprehensive to compare favourably with similar codes governing other advanced communities. The history of industrial legislation in New South Wales may be reviewed, according to the stages of life concerned, in four groups, affecting infancy, youth, manhood (specific and general), and old-age. Legislation affecting other than the years of manhood having only a remote influence upon industry, the prominent and essential enactments which regulate industrial conditions will naturally be found in the classification relating to manhood, and embracing the working years of life. Following the lines of this classification, a brief statement is given of the number of enactments made in each group, and of the particular subjects which have received attention.

Infancy and Youth.—Eighteen enactments are included in this section; they relate to the protection, custody, and education of children generally, the care of neglected and destitute children, the control and reformation of juvenile offenders against the law, the control and supervision of apprentices and young people generally.

Manhood (Specifically).—This section is best reviewed under the headings of the various industries which embrace the principal classes of labour thus:—

- (a) *Agricultural.*—Twenty-one enactments relate to the financial assistance of settlers, the supervision of fruit pests, and the promotion of agricultural interests.
- (b) *Pastoral.*—Twenty enactments embrace regulations for the protection of pastures, the prevention of diseases in stock, and the conservation of water for pastoral purposes.
- (c) *Mining.*—Enactments, numbering eighteen, are concerned with the regulation of mining on private and Crown lands, the promotion and control of mining companies, the relief of persons injured in accidents, the inspection of mines, and the safeguarding of miners' interests.
- (d) *Shipping.*—Six enactments relate to the duties of masters, and the rights and privileges of apprentices and seamen, and the control of navigation.
- (e) *Other.*—Four enactments embrace regulations affecting the forestry and fishing industries.

Manhood (Generally).—This section is of primary importance, and embraces all matters relating to the health, food, drink, and general welfare of the community. Considered in these aspects the enactments included (150) are distributed in the following subsections:—

- (a) *Food, Drink, Health.*—Thirty-four enactments regulate the sale and supply of meat, milk, bread, liquors, poisons, &c., the spread of disease, control of inebriates, and other such matters which have material influence on the health of the community.

- (b) *Industrial Conditions*.—Thirty-six enactments relate to points of primary importance in the promotion of trade. The legislation affects immigration, the restriction of Chinese and other alien races, the liability of employers, settlement of trade disputes, limitation of working hours, compensation for injuries and accidents, and the accommodation and protection of employees.
- (c) *General Welfare and Protection*.—Eighty enactments relate to the formation and regulation of labour settlements, erection of trade institutes, provision of working-men's homes, protection of wages of workmen, control of gaming and wagering, limitation of vagrancy, prevention of crime, regulation of debts and loans, extension of local government, and adult suffrage, &c.

Old-Age.—This stage of life has been covered by seventeen enactments, providing for sustentation by pensions in sickness and old-age, the supervision of friendly societies, and the extension to those societies of subventions; the regulation of insurance societies—fire, life, and marine, and of building and co-operative societies.

The enactment and administration by the Commonwealth Government of uniform systems of old-age, invalidity, and accidents pensions for Australia, for which the way was prepared by the pioneering work of New South Wales, rendered local legislation superfluous. Accordingly all the enactments of this State under this head being inoperative were revoked by the Old-Age Pensions and Invalidity and Accidents Pensions (Repeal) Act, 1911.

Historically, the earliest subjects to receive attention were such as related to industrial conditions and safeguards in trade. The sequence of treatment of individual trades placed shipping in the first rank, followed in order by retail trading, mining, agricultural, and pastoral industries. In regard to the helpless stages of life, youth received consideration as being proximate to the working years, before the extremes of infancy and old-age, which were more remotely concerned with the industrial problems.

The scope of the reforms affected by recent laws is considerable; and the extent to which the citizen is educated and tended has afforded material assistance to the deterrent forces which diminish crime and promote good citizenship and industrial peace.

Recent Legislation.—An enumeration of the enactments affecting industrial life passed during the last six years is given below under the headings referred to in the previous section:—

<i>Infancy and Youth</i>	...	...	...	1906	Free Education.
<i>Manhood (Specifically)—</i>					
<i>Agricultural, Pastoral, &c.</i>	...	...	...	1906	Burrinjuck Dam and Murrumbidgee Canals Construction, Closer Settlement (Amendment), Government Savings Bank, Pastures Protection (Amendment), Vine and Vegetation Diseases, Water and Drainage and Artesian Wells (Amendment).
"	"			1907	Closer Settlement (Amendment), Department of Agriculture Establishment.
"	"			1908	Crown Lands (Amendment).
"	"			1909	Closer Settlement (Amendment), Crown Lands (Improvement Purchase).
"	"			1910	Closer Settlement Promotion, Crown Lands (Amendment).
<i>Mining</i>	...	...	...	1906	Mining.
"	...	...	...	1907	Mining (Amendment).
"	...	...	...	1908	Coal Mines Regulation (Amendment).
"	...	...	...	1910	Miners' Accident Relief.
<i>Other...</i>	...	...	...	1908	Grass-tree Licenses.
"	...	...	...	1909	Forestry.
"	...	...	...	1910	Fisheries.

Manhood (Generally)—

<i>Food, Drink, Health</i>	...	...	1906	...	Hunter District Water and Sewerage (Amendment), Illawarra Suburbs Sewerage Construction, Sydney Abattoir Construction.
"	"	...	1907	...	Liquor (Amendment).
"	"	...	1908	...	Private Hospitals, Pure Food.
"	"	...	1909	...	Inebriates (Amendment).
"	"	...	1910	...	Diseased Animals and Meat (Amendment), Lithgow Sewerage.
"	"	...	1911	...	Pharmacy (Amendment).
<i>Industrial Conditions</i>	...	...	1906	...	Banks and Bank Holidays (Amendment) Early Closing (Hairdressers).
"	"	...	1908	...	Industrial Disputes (and Amendment), Minimum Wage, Scaffolding and Lifts (Amendment).
"	"	...	1909	...	Factories and Shops, Industrial Disputes (Amendment).
"	"	...	1910	...	Clerical Workers, Industrial Disputes (Amendment), Saturday Half-holiday, Workmen's Compensation.
<i>General Welfare and Protection</i>	...	...	1906	...	Careless Use of Fire, Companies (Amendment), Gaming and Betting (and Amendment), Local Government, Local Government Extension, Parliamentary Elections, Second-hand Dealers and Collectors, Sydney Corporation (Amendment).
"	"	"	1907	...	Companies (Amendment), Gaming and Betting (Amendment), Poor Prisoners Defence.
"	"	"	1908	...	Local Government (Amendment), Police Offences (Amendment), Prisoners Detention, Sydney Corporation (Amendment).
"	"	"	1909	...	Aborigines Protection, Fire Brigades, Motor Traffic.
"	"	"	1910	...	Crimes (Girls' Protection), Fire Brigades (Amendment), Parliamentary Elections (Second Ballot).
"	"	"	1911	...	Criminal Appeal Crimes (Girls' Protection—Amendment).
<i>Decline of Life, Sickness, and Old-age</i>	...	...	1906	...	Friendly Societies (Amendment), Police (Superannuation).
"	"	"	1907	...	Invalidity and Accidents Pensions.
"	"	"	1908	...	Subventions to Friendly Societies.
"	"	"	1910	...	Railway Service Superannuation.
"	"	"	1911	...	Old-age Pensions and Invalidity and Accidents Pensions (Repeal).

THE INDUSTRIAL LAWS OF NEW SOUTH WALES.

A list of the principal industrial laws now in force in New South Wales is given below, with a brief analysis of each Act. The provisions of a number of these Acts, which have for their object the amelioration of the conditions of the industrial workers, have been discussed in various parts of this Year Book.

The indenturing of apprentices is regulated by the Apprentices Act of 1901, which prohibits the apprenticeship of any child under 14 years of age, and fixes the maximum term of apprenticeship at seven years. The hours of labour are limited to forty-eight per week, and provision is made for the settlement of disputes between employer and apprentice. The Factories and Shops and the Minimum Wage Acts also contain special clauses relating to child labour. Children under 13 years of age may not be employed, and those between ages 13 and 16 years must be subjected to medical examination and obtain a certificate of fitness.

The provisions of the Factories and Shops Acts, 1896 and 1909, apply to all employees in establishments where at least four persons are engaged, or where machinery is used. The working hours are defined, and overtime, for which special payment must be made, is restricted. The employers must make adequate arrangements for the ventilation and sanitation of buildings, and for safeguarding the machinery in order to minimise the risk of accidents to the workers.

The Early Closing Acts of 1899 and 1900 provide for a weekly half-holiday for all shop assistants, the shops, with a few necessary exceptions, being required to close at 1 o'clock on one day, and at 6 o'clock on four days. At the commencement, the Early Closing Act applied only to the Metropolitan and Newcastle districts, but has since been extended to many country districts. In the two districts named, each shop-keeper was given the option of allowing the half-holiday on either Wednesday or Saturday; in the country, all the shop-keepers in each district were required to close at 1 o'clock on a day which was fixed in accordance with local conditions. By the operation of the Saturday Half Holiday Act, passed in 1910, Saturday has been proclaimed as the statutory half-holiday for all shops in the Metropolitan and Newcastle districts and in the County of Northumberland; and the provisions of the Act have been extended to several country districts by proclamation issued by consent of both Houses of Parliament.

The Coal Mines Regulation and the Mines Inspection Acts relate to the workers in mines—the former in coal, and the latter in all other mines. Strict regulations have been made to ensure the safety of the miners. Persons in control of the mines, or in charge of the machinery, must hold certificates of competency. Inspectors have been appointed to enforce the regulations dealing with ventilation, safety appliances, and escapes, and the exercise of proper precautions in the use and storage of explosives. The employment underground of boys under 14 years, and of females, is prohibited.

The Seamen's Act regulates the engagement and discharge of seamen, the payment of their wages, the provision of proper food and medical comforts, the treatment of deserters and other offenders against discipline.

Amongst other laws relating to specified occupations are the Shearers' Accommodation Act of 1901; and the Clerical Workers Act of 1910, which enables any employer of ten clerks, or ten clerks in similar employment, to apply for an award under the Industrial Disputes Act.

Compensation to workmen for injuries received whilst at work is regulated by the Employers' Liability Act of 1897, and the Workmen's Compensation Act of 1910. Under the earlier enactment, damages may not be obtained unless the workmen can prove negligence on the part of the employer or of his servants; on the other hand, the Workmen's Compensation Act is limited to certain trades, but applies to all accidental injuries in those trades, such occurrences being regarded as part of the trade risks.

List of Acts affecting the Industrial Classes.

<i>Act.</i>	<i>Date.</i>	<i>Act.</i>	<i>Date.</i>
Advances to Settlers ...	1899, 1902	Closer Settlement Promotion ...	1910
Apprentices ...	1901	Coal Lumpers' Baskets ...	1900
Attachment of Wages Limitation	1900	Coal Mines Regulation	1902, 1905, 1908
Bankruptcy (abstract) ...	1898	Companies (abstract) ...	1906
Banks and Bank Holidays (abstract) ...	1898, 1899, 1906	Contractors' Debts ...	1897
Blockholders ...	1901	Crimes (abstract)...	1900, 1905
Building and Co-operative Societies ...	1902	Early Closing	1899, 1900, 1906, 1910
Butchers' Shops Sunday Closing	1902	Employers' Liability ...	1897
Clerical Workers ...	1910	Factories and Shops ...	1896, 1909
		Fisheries ...	1901, 1902, 1910

<i>Act.</i>	<i>Date.</i>	<i>Act.</i>	<i>Date.</i>
Forestry (abstract)	1909	Police Offences (Abstract) ...	1901
Free Education	1906	Poor Prisoners Defence	1907
Friendly Societies	1899, 1900, 1901, 1903, 1906	Pure Foods	1908
Grass Tree Licenses	1908	Railway Service Superannuation	1910
Industrial Disputes	1908, 1910	Registration of Firms	1902
Labour Settlements	1902	Saturday Half Holiday	1910
Liquor (abstract)... ..	1898, 1905	Scaffolding and Lifts	1902
Master and Servants	1902	Seamen's	1898
Miners' Accident Relief 1900, 1904, 1910		Second-hand Dealers and Collectors	1906
Mines Inspection	1901	Shearers' Accommodation	1901
Minimum Wage	1908	Subventions to Friendly Societies	1908
Mining	1906, 1907	Trade Unions	1881
Motor Traffic	1909	Truck	1900, 1901
		Workmen's Compensation	1910

Analysis of Acts.

ADVANCES TO SETTLERS, 1899.

Sale of Inscribed Stock.

Clause.

1. Sale of inscribed Stock—maximum £1,000,000 (Amendment Act, 1902).
2. Conditions of sale.
3. Redemption after twenty years.
4. Interest, $3\frac{1}{2}$ per cent., payable half-yearly.
5. Stock certificates to be issued.
6. Transfer of Stock.
7. Specific application of moneys raised.
8. Power to Trustees to invest in this Government Stock.

Application of Money Raised.

9. (1) Application of moneys: temporary advances to landholders, including mortgagors.
- (2) Conditions governing advances and repayments.
10. Applicants for advances to disclose prior encumbrances.
11. Register of advances, to be available for inspection.
12. Application of repayments of advances and interest to Consolidated Revenue Fund.

Machinery.

13. Constitution of Board of Administration.

ADVANCES TO SETTLERS (AMENDMENT), 1902.

2. Time limit for repayments, thirty-one years.

ADVANCES TO SETTLERS (AMENDMENT), 1902.

2. Maximum sales of stock—£1,000,000.
4. Advances limited to a maximum of £1,500.
5. Minimum interest rate, payable in respect of an advance to be 4 per cent. per annum.

APPRENTICES, 1901.

3. Exceptions as to professions.

Masters and Apprentices.

4. Age limitations.
5. Orphan apprentices.
6. Certain children may be bound, notwithstanding parental objections.
7. Parent may apply for custody of such apprentice.
8. Justices may bind as apprentices children in respect of whose maintenance an order has been made.
9. Failing father, mother, or guardian, justices may act.
10. Any person resident and trading in New South Wales may take apprentices.
11. Government officials may take apprentices.
12. Company managers may take apprentices.
13. Three months' probation, before completion of indenture.
14. Assignment of indentures, by masters or executors.
15. Expiry of apprenticeship by effluxion of time on attainment by apprentice of age 21, or on marriage (with consent) of a minor.
16. Hours of labour: maximum forty-eight hours per week; rural savings as to, and domestic service.

APPRENTICES, 1901—*continued.**General.*

Clause.

17. Court may settle disputes and award costs.
18. (1) Absence of apprentice without leave, and proceedings thereon. (2) Warrant may be issued and security ordered.
19. Penalty in case of transfer or discharge of apprentice without his consent.
20. Enticing, employing, or harbouring apprentices. Penalty.
21. Procedure under this Act; application of moneys recovered.
22. Exemptions from imprisonment, of apprentices under age 16, or of female apprentices.
23. Supervision of orphan apprentices.
24. Appeals against conviction or order.
25. Saving as to construction, subject to Act 71, 1900 (Justices Acts Amendment).

ATTACHMENT OF WAGES LIMITATION, 1900.

1. Wages or salary not exceeding £2 per week not to be subject to order for attachment; against wages or salary exceeding £2 per week orders for attachment to apply only to the excess amounts.

BANKRUPTCY, 1898.

48. (1 and 2) Priority of debts; wages or salary to a maximum of £50, for services rendered within six months of the sequestration order, to rank equally *inter se*, and be paid in full, or abated in equal proportions.
49. (1) Preferential claim of apprentice or articulated clerk in recovery of proportion of premium; sequestration order to rank as discharge of indenture or article.
(2) Official assignee or trustee may transfer indentures or articles.
78. Filing of periodical statements showing realisation and distribution of assets.
114. Exclusion of limited companies.
125. Savings of Rights under Life Assurance Act.

BANKS AND BANK HOLIDAYS, 1898.

Part III.

14. Bank holidays to be close holidays.
16. Obligations falling due on a bank holiday to apply to the day following.
17. Special bank holidays.
18. Veto by proclamation of a bank holiday.

BANKS AND BANK HOLIDAYS (AMENDMENT), 1899.

1. Certain declared bank holidays not falling on Monday may be postponed to the following Monday.

BANKS AND BANK HOLIDAYS (FURTHER AMENDMENT,) 1906.

2. Seven days' notice to be given of special public holidays.
3. Anniversary Day (26th January) exempted from postponement to Monday.
4. Reference in industrial or other agreements to a public or bank holiday, to be deemed to relate to the day on which the holiday is publicly observed.

BLOCKHOLDERS, 1901.

Leases of Small Blocks for Working Men.

3. Land may be set apart and leased: conditions.
4. Qualifications of lessees.
5. Forfeiture for default.
6. Residence.
7. Impounding rights.
8. Reports by Local Land Board.
9. Fund to be created for advances, out of Public Funds.
10. Advances: conditions.
11. Applications for advances.
12. Repayment of advances.
13. Extension of time for repayments.
14. Interest, 5 per cent.
15. Agreements.
16. Breach of conditions.
17. Subleases and mortgages to be void.
18. Endorsement as homestead block.
19. Effect of endorsement in protecting lease.
20. Application of proceeds of repayments.
21. Accounts.
22. Penalty for fraud or misrepresentation.

BUILDING AND CO-OPERATIVE SOCIETIES, 1901.

Benefit, Building, Loan, and Investment Societies.

Clause.

6. Purposes for which societies may be established; rules; shares.
7. Provisions in the rules.
8. Proviso as to dividends.
9. A society may receive money by way of bonus on shares.
10. Forms of conveyance, &c., may be specified and scheduled.
11. Receipts of trustees to act as reconveyances.
12. Evidence of appointment of trustees; efficacy of signed copy of resolution.
13. Application of certain provisions.
14. Dissolution of societies; procedure; division of funds; discharge at law and in equity to trustees and other officers; claims of members; penalty for unlawful determination of society.
15. Appropriation of funds may be referred to award of Registrar of Friendly Societies, who may also investigate in case of alleged insufficiency, and give an award; notice in writing to be sent to officers prior to investigation.
16. Registrar's award to be conclusive; expenses to be paid out of society's funds.
17. Award of dissolution to be advertised, and to operate after three months, if not opposed.
18. Registrar's annual report to contain particulars of award.
19. Societies may amalgamate, or transfer engagements; votes of absent members.
20. Appointment of trustees.
21. Minors may be elected as members, and execute instruments, &c., but not hold office.
22. Society to furnish correct lists of charges payable by members; such charges to be alterable by resolution of three-fourths of the members.
23. Buildings may be purchased or leased for holding meetings; receipt in writing of trustees to be a legal discharge; moneys spent in purchasing, &c., shall be raised as provided in rules.
24. Property of societies vests in trustees, and on death or removal, in succeeding trustees; efficacy in action of statement of property as so vested.
25. Trustees may bring or defend actions, such actions not to be abated by the death or removal of a trustee.
26. Limitation of trustee's responsibility to moneys actually received by him on account of society.
27. Proceedings: officer may be made defendant by name and title—no abatement or prejudice by death, resignation, or removal. Summons may be served at place of business of society.
28. Treasurer and other officers to give security; bond to be conditioned for just and faithful execution of office and given to trustees, who are officers empowered to sue upon it.
29. The treasurer to account.
30. Recovery of property on decease or bankruptcy of officer.
31. Returns.
32. Penalty for default.

Co-operative Trading and Industrial Societies.

33. Constitution.
34. Provisions in rules.
35. Certificate effects in corporation.
36. Certificate to vest property in society.
37. Change in registry.
38. Name not to resemble that of another society.
39. Limitation of members' interest.
40. Display of name.
41. Penalty for misrepresentation.
42. Registered office.
43. Notification.
44. Signature, and effect, of rules.
45. Winding up.
46. Dissolution not to exclude winding up.
47. Liability of present and past members.
48. Members right to dispose of interest by nomination.
49. Members right to inspect books.
50. Annual returns.

BUILDING AND CO-OPERATIVE SOCIETIES, 1901—*continued*.*General Provisions.*

Clause.

51. Taking money prior to registration.
52. Rules to be submitted to Registrar and certified.
53. Alteration of rules.
54. Notice of change of place of business.
55. Circulating false rules.
56. Rules in evidence.
57. Punishment of fraud in withholding money, &c.
58. Settlement of disputes.
59. Reference to District Court.
60. Enforcement of District Court orders.
61. Disputes between members of non-registered societies to be settled according to Act.
62. Society may be constituted as a company.
63. Power to change name.
64. Recovery of penalties.

BUTCHERS' SHOPS SUNDAY CLOSING, 1902.

3. (1) Butchers' shops within the Metropolitan Police district not to be kept open for the sale of meat between the hours of 12 on Saturday night and 12 on Sunday night; penalty.

CLERICAL WORKERS, 1910.

3. (1) Application to Industrial Court; minimum wage to be fixed; classification of clerical labour; overtime.
- (2) Aged, infirm, or slow workers.
4. Duration of award [one to three years].
5. Provisions of Industrial Disputes Act, 1908, to apply, subject to this Act with regard to jurisdiction.
6. Regulations to be made by Judge of Industrial Court.

CLOSER SETTLEMENT PROMOTION, 1910.

Approval of Applicant and Valuation of Land.

3. Application by purchasers of private lands to bring lands under the Act.
4. Valuation of land.
5. Valuation below purchase price fixed.
6. Change in number or personnel of applicants.
7. Surrender by vendor to Crown.

Vesting of Land in Purchaser.

8. Land to vest as settlement purchase; conditions.

Loans and Securities.

9. Loans by Government Savings Bank.
10. Repayment by instalments.
11. Liability of minor as mortgagee.
12. Maximum amount of loan.
13. Extension to apply to Closer Settlement Promotion, Government Savings Bank Act, 1906.
14. Limit of total annual advances by Bank.
15. Advances on improvements.
16. Forfeiture of holdings.
17. Issue of grant.

General and Supplemental.

18. Application of proceeds of debentures to advances.
19. Deposit of moneys set apart for advances and not required.
20. Deficiency in reserve fund of Bank.
21. Reference to Advisory Board.
22. Suspension of proclamation.
23. Statements to Parliament.

COAL LUMPERS' BASKETS, 1900.

2. Maximum inside dimensions and weight of baskets, viz., 23 inches top diameter, 19 inches depth, 16 inches bottom diameter, maximum weight 30 lb.
3. Penalty on conviction of infringing this regulation.
4. Adjudication of offences, and recovery of penalties.

COAL MINES REGULATION, 1902.

Mines Regulation.

Certificated managers, under-managers, and engine-drivers.

Clause.

4. Appointment of manager compulsory; registration of persons qualified; penalty for working without a manager; permits from inspectors.
5. Daily supervision to be exercised by manager or under-manager; certification of under-manager; disqualifications for post of manager or under-manager.
6. Certificates of competency for managers and under-managers; constitution of board for appointing examiners; appointment and removal of members; proceedings and power of board; reports.
7. Rules as to examinations.
8. Grant of certificates of service to existing managers and under-managers.
9. Certificates after examination; register of certificates.
10. Inquiry as to competency: cancellation of certificates.
11. Costs of inquiry.
12. Records to be made of cancellations; restorations.
13. Copy of certificates in case of loss.
14. Expenses in relation to certificates and application of fees.
15. Penalty for forgery of, or false declaration as to certificate.

Inspection.

16. Existing inspectors continued.
17. Appointment of inspectors; certificates required.
18. Disqualifications for inspectorship.
19. Powers of inspectors; penalty for obstruction.
20. Notice by inspector of causes of danger not expressly provided against.
21. Annual reports of inspectors.
22. Special reports of inspectors.
23. Formal investigation of accident at Minister's direction.
24. Publication of reports.

Arbitration.

25. Provisions as to arbitration in disputes between owners and inspectors.

Coroners.

26. Provisions as to Coroners' inquests on deaths from accidents in mines.

Returns, plans, notices, and abandonment.

27. Annual returns to be made by owner or agent; publication of aggregate statistics.
28. Plan of mines and workings, &c., to be kept at office of the mine.
29. Notice to be given of accidents in mines.
30. Notice to be given of opening and of abandonment of workings.
31. Fencing in case of abandoned mine.
32. Plan of abandoned mine or seam to be supplied to Minister.
33. Service of notices.

Employment of boys and females.

34. Prohibition of boys under 14 years, and of females.
35. Limitation of working hours, and regulations as to employment of boys.
36. Penalty for employment of persons in contravention of the Act.

Wages.

37. Prohibition of payment of wages at places connected with sale of spirituous or fermented liquors.
38. Payment of employees by weight of mineral obtained; regulations.
39. Owner or agent may be summoned for wages due not in excess of £50.
40. Appointment and removal of check weigher on behalf of employees of mine.
41. Remuneration of check weigher.
42. Inspection of weights, &c., used in mines.

Single shafts.

43. Prohibition of single shafts.
44. No agreement shall preclude compliance with the Act.
45. Exceptions from provisions as to shafts.

Division of mine into parts.

46. Separate workings; notice; directions; reference to arbitration.

COAL MINES REGULATION, 1902—continued.

Rules.

Clause.

General rules.

47. Ventilation of mines: ventilation by fire; by machinery; stations and inspections of conditions as to ventilation; inspection of machinery above and below ground; fencing of entrances; withdrawal of workmen in case of danger; use of safety lamps in certain places; construction and examination of safety lamps; lamp stations; use of explosives below ground; water and bore holes; signalling and manholes for travelling planes worked by machinery; manholes for other travelling roads; manholes to be kept clear; dimensions of travelling roads; fencing of shafts; trolley over pit mouth; fencing of entrances to shafts; securing of shafts; sinking pit to be clear of gas; securing of roofs and sides; timbering; option of using downcast shaft; attendance of engineman; means of signalling for working shafts; overwinding; cover over head; chains; prevention of rope slipping on drum; brake and indicator; fencing machinery; safety valves and gauges for boilers; barometers and thermometers; stretchers; wilful damage; observance of directions; books of records and rules; copies; periodical inspection of mine on behalf of workmen; inexperienced persons prohibited from employment in coal getting; interference with office of check inspector or check weigher.
48. Directions of inspectors against inexperienced employees.
49. Non-compliance with rules; penalty.

Special rules.

50. Special rules to be formulated for every mine.
51. Formulation of new special rules.
52. Minister's objection to special rules.
53. Amendment of special rules.
54. False statements and neglect to transmit for approval.
55. Certified copies in evidence.
56. Special rules made by Governor.

Publication of Abstract of Act and of Special Rules.

57. Abstract of Act and of special rules to be posted up and supplied to employees.
58. Pulling down or defacing notices.

Supplemental.

Legal Proceedings.

59. Offences.
60. Penalty.
61. Imprisonment for wilful neglect endangering life or limb.
62. General provisions as to summary proceedings.
63. Liability for misrepresentation as to age, &c.
64. Prosecution of owners, agents, managers, &c.
65. Report to inspector of result of proceedings against workmen.
66. Saving for proceedings under other Acts.
67. Owner of mine or agent or relative, &c., not to act as Justice, &c., in proceedings under this Act.
68. Application of fines.

Miscellaneous.

69. Savings as to repealed enactments.
70. Decision to lie with Minister of question whether a mine is under this Act.
71. Making and revoking orders: power of Minister.
72. Entry on adjoining mine to ascertain if owner is encroaching; authority; prior statutory declaration compulsory; penalty.

COAL MINES REGULATION (INSPECTION), 1904.

2. Periodical inspections on behalf of workmen to be undertaken by practical miners.

COAL MINES REGULATION (AMENDING), 1905.

2. Penalty on unqualified person taking charge of machinery.
3. Examinations of winding-engine drivers' certificates of competency; granting certificates; fees.
4. Granting certificates of service.
5. Winding engineers, and their certificates: operations of sections 10, 11, 12, 13, 14, and 15 of Principal Act extended to cover.
6. Certificates granted outside New South Wales to engine drivers; effect of such certificate.
7. Register of holders of certificates.
8. Holders of certificates to be deemed registered under Mines Inspection Act, 1901.
9. Engineman to be a competent man, not less than 21 years of age.

COAL MINES REGULATION (AMENDING), 1908.

Clause.

2. Appointment of electrical inspector.
3. Penalty upon unqualified persons being employed as mine electrician; certificate of competency.

COMPANIES (AMENDMENT), 1906.

7. Foreign companies to register.
9. Lists of debenture and stock holders to be made.
10. Lists and balance-sheet to be filed.

CONTRACTORS' DEBTS, 1897.

3. Workman or tradesman suing a contractor may obtain a certificate of cause of debt.
4. Certificate not to be given if workman could have had a lien.
5. Certificate to be for not more than sixty days' wages.
6. Limit of action.
7. Process for obtaining payment of debt out of moneys due to contractor.
8. Service of notice to operate as assignment of moneys due to contractor.
9. After service contractee to pay proved debt out of moneys due to contractor.
10. Priority of assignments; in order of service of notice on contractee; equal rating of notices served within seven days of first notice.
11. If contractee fail to pay, workman or tradesman may sue for moneys assigned.
12. Assignment to cease to operate upon satisfaction of debt.
13. Discharge to be signed, on receipt of money.
14. Moneys may be attached, after notice of action served on contractee.
15. Mode of obtaining leave to serve notice.
16. Proceedings after judgment.
17. Contractor to furnish information as to contractee: penalty.
18. Contractor liable for wages or moneys due by sub-contractor.
19. Savings as to rights and remedies.

CRIMES, 1900.

155. Definition of clerk or servant.
156. Larceny by clerk or servant.
157. Embezzlement.
158. Manipulation of accounts by clerk or servant.

CRIMES (AMENDMENT), 1905.

2. Fraudulent misappropriation of moneys collected or received.

EARLY CLOSING, 1899.

The Closing of Shops.

Shops not mentioned in Schedule I.

Metropolitan and Newcastle districts.

1. Closing times.

Country districts.

2. Each municipality, outside Metropolitan and Newcastle districts, to be a country shopping district.

Shops mentioned in Schedule I.

6. Closing time.

General Penalties.

7. Shops to close and be kept closed; savings; pharmacists exempted.

Shop Assistants and Carters.

8. Overtime employment of shop assistants prohibited (shops excepted from Schedule I); savings; records to be kept; penalty.
9. Hours of work of assistants in shops listed in Schedule I; half-holidays; penalties.
10. Butchers' and milk vendors' carters weekly half-holiday; bakers' carters monthly holiday.

Supplemental.

11. Governor may alter boundaries of shopping district.
12. Appointment of inspectors.
13. Powers of inspectors.
14. Obstruction of inspectors.
15. Penalty for offences.
16. *Prima facie* evidence of employment, in case of prosecution.

EARLY CLOSING, 1899—*continued*.

Clause.

Supplemental—continued.

17. Release of shopkeeper upon proof of real offender.
19. Informations for offences; appeals.
20. Mixed trading shops.
22. Time assumption for Broken Hill and Sturt.
23. Exemptions of refreshment stalls, book-stalls, and hotels.
24. Savings as to Factories and Shops Act, 1896.

EARLY CLOSING (AMENDMENT), 1900.

Closing times.

3. Closing times of shops in country shopping districts, viz., 1 p.m. on one day, 10 p.m. on one day, 6 p.m. on four days; memorial for poll.
4. Proclamation of country shopping districts.
5. Closing of newsagents and booksellers' shops.
6. Closing time in Newcastle shopping district.
7. Shopkeepers occupying more than one shop.
8. Closing times in case of holiday occurring: shop assistants, minors, and carters.
9. Overtime (section 8 (1), Principal Act) prohibited about the business of, as well as in, any shop.
10. Assistants may be employed for extra hours on full pay in lieu of holiday.
11. Half-holidays in hotels, restaurants, &c.
12. Bread-carters' monthly holiday.
13. Regulation of half-holidays or holidays for carters.

Supplemental and exemptions.

15. Exemptions (section 23, Principal Act) extended to tramway or ferry stalls.
16. Hairdressers' shops exempted from overtime employment on ordinary days (section 8, 1899 Act).
17. Proof of closing.
18. Suspension of operation of Act in certain cases.
19. Exemption of bazaars.

EARLY CLOSING (HAIRDRESSERS' SHOPS), 1906.

Hairdressers' shops.

2. Hairdressers' shops to close at 7.30 p.m. when other non-scheduled shops close at 6 p.m.
5. Hairdressers' shops included under section 9, 1899 Act.
11. Hairdressers' assistants disallowed employment on full pay in lieu of holiday, section 10, Early Closing (Amendment), 1900, No. 81.
13. Penalty for doing work for customer after closing time; savings as to waiting customers.

Shopkeepers.

14. Liability of shopkeeper sub-leasing shop for less than one week.

EARLY CLOSING (AMENDMENT) 1910.

2. Closing time for butchers', poulterers', and hairdressers' shops in country shopping districts.
3. Closing time of newsagents' and booksellers' shops—8 p.m. on four nights, and 10 p.m. on Friday and Saturday.
6. Poulterers' shops exempted from operation of Saturday Half Holiday Act, 1910.
7. Savings as to Christmas holidays.

EMPLOYERS' LIABILITY, 1897.

4. Right to compensation for personal injury.
5. Limitations.
6. Notice of injury; commencement of action; absence of notice of injury no bar if reasonable excuse adjudged.
7. Defective notice may be amended.
8. Form of notice; defect or inaccuracy no bar unless adjudged prejudicial to defence.
9. Service of notice.
10. Limit of sum recoverable as compensation.
11. (i) Money paid as penalty to be deducted from compensation.
(ii) No penalty to be recoverable under any other Act for any injury, for which action has been brought.
(iii) Expenses paid by employer on account of injury to be deducted from compensation awarded.
12. Employer entitled to credit for insurance effected by him.

Factories and Shops, 1896.

Clause.

3. Application; exemptions.

Part I.—Appointment of Inspectors, Registration and Inspection of Factories, and Inspection of Shops.

4. Inspectors may be appointed.
5. Existing factories to be registered.
6. New factories to be notified and registered.
7. Powers of inspectors to enter, examine, and otherwise ensure observance of requirements.
8. Occupiers to allow entry and inspection.
9. Obstructing inspectors: penalty.
10. Inspector to produce certificate of appointment.
11. Forged certificates: penalty.

Records.

12. Occupier to keep records regarding employees; copy of Act and regulations to be posted up.
13. Scale of wages and piece-work rates to be supplied to Minister on demand.
14. Occupiers to keep and supply records for inspectors, of outside workers: penalty.
15. Definition of occupier and out-worker.
16. Inspectors not to divulge records.
17. Inspectors to make annual reports to Minister.

Sanitary Arrangements.

18. Factories to be kept clean and well ventilated.
19. Periodical renovation and cleaning of factory interior; papered walls; records of dates of renovation, &c.
20. Exemptions: power of Minister to make exemptions.
21. Bakehouses not to be used as sleeping places; outhouses; penalty.
22. Meals: provision of dining rooms.
23. Ventilation; humidity; inspector's directions.
24. Seating accommodation for females in shops.

Fencing of Machinery and Protection from Fire.

26. Traversing carriage of self-acting machine: limit of projection.
27. Liability of employer for injury caused by act or default of person in charge of boiler.
28. Dangerous machinery to be fenced.
29. Safeguards; inspectors' directions.
30. Prohibition of use of dangerous machinery.
31. Hoists and lifts to be protected: prohibition of unsafe or dangerous elevators or lifts.
32. Restriction on employment of females, and males under 18 years.
33. Notice of accidents in factories.
34. Doors to open outwards; provision for fire extinguishers and fire escapes; arbitration in case of occupiers' objections to Minister's requirements.

Ages of Factory Employees, and Certificates.

35. Children not to be employed; special permission for children over age 13.
36. Intervals for meals for females, and males under 18 years.
37. Limitation of hours of work; extension in certain cases; records of overtime; enforcement of overtime payments; sec. 37, Minimum Wage Act, 1908.
38. Restriction of employment in certain dangerous trades.
39. Certificates of fitness and of age, in certain dangerous trades; production of certificates by employer.
40. Limitation of working hours of young persons: special exemptions.
41. Incapacitation of workers under age 16: prohibition by inspector.
42. Employment of females.

Shops.

43. Regulation of hours of work of young persons; penalty on occupiers for contravention.

Miscellaneous.

45. Contraventions of Act to be reported; authority of Minister required for prosecution.
46. No occupier to contract with employee against his liability.
47. Recovery of penalties.
48. Service of order, notice, or summons.
49. Failure to conform to requirements: penalty.
50. Employment contrary to Act: penalty.

Factories and Shops, 1896—*continued.*

Clause.

Miscellaneous—continued.

51. Liability of parents.
52. Proof of age: onus on employee.
53. Forged certificate and false declaration: penalty.
54. Exemption of occupier from fine on conviction of actual offender.
55. Governor to make regulations.

Factories and Shops (Amendment), 1909.

3. Permits issuable to occupy premises pending alterations and subsequent registration.
4. Penalty for occupation of unregistered factory. Notification by inspector of defects in building; appeal by occupier to Minister; determination of appeal; order by Minister on appeal; prohibition by Minister of use of factory.
5. Inspector may be assisted by an interpreter and may institute proceedings.
6. Records to apply to all employees under age 21.
7. Seating accommodation requisite for females in factories.
8. Minister may order occupier to provide dressing rooms for females.
9. Avoidance of infection from disease, &c., in factories or shops dealing with wearing apparel, or issuing materials; premises occupied in connection with factory to be open to inspection; nuisances punishable under other Acts to be notified by inspector.
10. All power generating engines and cogwheels to be fenced.
11. Restriction of use of mill gearing as dangerous machinery.
12. Provision of external fire escapes.
13. Minister may prohibit employment of women, and boys under age 16, in undesirable occupations.
14. Notice of overtime working; records; proof of exigency of trade; limitations; penalty.
15. Prohibition of employment of females before 6 a.m.
16. Restriction of hours of employment in Chinese or other furniture factories; prohibition as sleeping place: evidence in prosecution; suspension of operation of this section to meet exigencies of trade.
17. *Prima facie* evidence of authority to prosecute.

Fisheries, 1902.

Abstract.

4. Fisheries Board: institution and duties.
5. Constitution.
10. Right of entry of inspectors.
11. Notification of close fisheries.
14. Licensing of net boats.
15. Licensing of fishermen.
16. Weekly returns to be furnished by market sellers.
17. Liability of other sellers to supply returns.
18. Nets and mesh to be specified.
19. Exemption of nets, &c., used for scientific purposes.
21. Methods of dragging or drawing nets.
22. Waters not to be stalled.
23. Undersized fish: disposal and penalties.
24. Prohibition of explosives.
28. Prohibited periods for holding salmon and trout.
29. Restriction of salmon and trout fishing to rod and line.
31. Penalty for holding salmon and trout roe.
33. Leasing of Crown lands for oyster culture.
34. Conditions of lease: rights pending.
35. Property and rights conferred by lease.
40. Resumption of leases given under repealed Acts.
42. Cancellation of leases.
44. Closing of natural oyster-bearing areas.
46. Unlawful dredging or taking of oysters.
48. Protection of leased areas.
49. Prohibition of burning live oysters for lime.
50. Licensing of oyster dealers.

Net Fishing (Port Hacking), 1901.

Abstract.

3. Restriction of net fishing in Port Hacking.
4. Notification of portions of Port Hacking as open to net fishing.
5. Penalty for taking nets into prohibited areas.
8. Tidal waters of Port Hacking open to handline or rod and line fishing.

FISHERIES (AMENDMENT), 1910.

Clause.

Abstract.

2. Dissolution of Fisheries Board : powers to vest in the Minister.
3. Advisory Board : constitution.
4. Appointment of inspectors and officers.
6. Purview to include regulation of sale of fish and oysters, whether local production or imported.
7. Placing materials for catching spat.
8. Infringement of close fishing regulations : penalties.
9. Removal of spawn.
18. Nets for use in ocean waters and on sea beaches.
19. Prohibition of fixed engines, &c.
20. Seizure and forfeiture of nets and implements illegally used.

FORESTRY, 1909.

14. Licenses to be granted to obtain timber and other products.
17. Sawmills to be licensed and books kept.
18. Royalties on timber.
19. Royalties on products.
20. Permits to graze or to occupy.
23. Transfer of licenses.

FREE EDUCATION, 1906.

(To be construed with the Public Instruction Act, 1880.)

2. Education in public schools to be free.
- Repeal of section 11 and amendment of section 27 of the Public Instruction Act, 1880.

FRIENDLY SOCIETIES, 1899.

Registry Office.

1. Institution of office.
2. Functions.
4. Registrar's annual report.
5. Deposit of documents, and keeping of records.

Registry of Societies.

6. Societies to be registered.
7. Conditions of registration.
8. Name of applicant society.
9. Acknowledgment of registry.
10. Appeal from refusal of registry.
11. Amendment of rules.
12. Societies disentitled to registry.

Societies with Branches.

13. Conditions of registry of societies with branches.
14. Establishment of new branches.
15. Previous provisions to apply to branches.
16. Conditions of registry of branches as societies.
17. Name of seceding or expelled branch.
18. Contributions from one society to another.

Consequence of Registry.

19. Recovery of subscriptions.
20. Registered office.
21. Authority of Registrar to inspect books and investigate *re* bank deposits.
22. Appointment of trustees.
23. Annual audit of accounts.
24. Annual returns.
25. Quinquennial report, and valuation.
26. Inspection of balance sheets, &c.
27. Remuneration of actuary.
28. Binding effect of rules of authorised societies.

Privileges of registered Societies.

29. Exemptions from stamp duty.
30. Transfers of stock.
31. Priority on death or bankruptcy of officer.
32. Membership of minors.
33. Subscription to hospitals.

FRIENDLY SOCIETIES, 1899—*continued.**Rights of members.*

Clause.

- 34. Supply of rules.
- 35. Supply of annual returns.
- 36. Inspection of books by members.
- 37. Limitation of benefits.
- 38. Accumulation of surplus of contributions.
- 39. Military or naval service not to bar interests.

Property, funds, and investments.

- 40. Investment of funds.
- 41. Reconveyance by receipt of trustees.
- 42. Loans to members from separate loan fund.
- 43. Holding of land.
- 44. Vesting of property in trustees.
- 45. Devolution on death.
- 46. Description in legal proceedings as property of trustees.

Officers in receipt or charge of money.

- 47. Security by officers.
- 48. Accounts to be rendered by officers.

Payments on death, generally.

- 49. Member's power to dispose by nomination of sums due.
- 50. Proceedings on death of nominator.
- 51. Intestacy.
- 52. Validity of payments.
- 53. Certificates of death.

Payments on death of children.

- 54. Limitation of amount payable.
- 55. Persons to whom payment may be made.
- 56. Particulars to be given in death certificates.
- 57. Conditions under which certificates may be given.
- 58. Inquiries by society as to payments on first certificates.
- 59. Saving as to insurable interest.

Disputes.

- 60. Decision of disputes.

Change of name, amalgamation, and conversion of Societies.

- 61. Power to change name.
- 62. Amalgamation and transfer of engagements.
- 63. Conversion of society into company.
- 64. Saving rights of creditors.
- 65. Conversion of society into branch.
- 66. Conditions as to special resolution.
- 67. Registration of special resolution.

Inspection, cancellation, and suspension of registry, dissolution.

- 68. Appointment of inspectors.
- 69. Cancellation and suspension of registry.
- 70. Dissolution of societies.
- 71. Instrument of dissolution.
- 72. Award of dissolution.
- 73. Advertisement of notices.
- 74. Consent to dissolution of societies having branches.
- 75. Notice of proceedings to set aside dissolution.

Offences, penalties, and legal proceedings.

- 77. Offences.
- 78. Liability of officers for offences by societies.
- 79. Continuing offences.
- 80. Punishment of fraud, false declarations and misappropriations.
- 81. Fine for falsification.
- 82. Fine for ordinary offences.
- 83. Penalty for special offences.
- 84. Recovery of fines, and prosecution of offences.
- 85. Legal proceedings.

Fees, forms, regulations, evidence.

- 86. Calculation and payment of fees.
- 87. Fees payable for certificates of birth or death.
- 88. Form of registrations, returns, &c.
- 90. Evidence of documents.

Clause.

FRIENDLY SOCIETIES (AMENDMENT), 1900.

2. Exemption of existing societies from section 8 *re* similar names.
4. Registrar by consent, to hear and determine disputes.
6. Right to change of registry of co-operative trading and industrial societies.

FRIENDLY SOCIETIES (AMENDMENT), 1906.

3. Compulsory registration of societies and branches; exemption of dividing or levy societies.
4. Rules inoperative, and privileges barred to society or branch unregistered.
6. Separation of accounts of moneys received and paid; property earnings, minimum of 4 per cent. per annum; moneys misapplied to be restored.
7. Registrar to make recommendations on valuation.
8. Any party to a dispute may refer to Registrar.
9. Procedure where rules do not apply or if no decision made.
13. Annual returns to be made within three months of the close of the year.
21. Registrar's power to appoint inspectors to report upon a registered society.

GRASS-TREE LICENSES, 1908.

2. Issue of licenses.
3. Regulations to be made.

INDUSTRIAL DISPUTES, 1908.

5. Classes of industries for which boards may be constituted.
6. Power to amend Schedule.

Awards, &c., of Court of Arbitration.

7. Duration and variation of awards.
8. Filing of documents.

Registration of Trade Unions.

9. Conditions governing applications, registration and cancellation.

Industrial unions.

10. Savings as to unions duly registered.
11. Cancellation of registration of unions.

Industrial agreements.

12. Making and enforcing agreements.

The Industrial Court.

13. Appointment of judge.

Constitution and Powers of Boards.

Constitution of Boards.

14. Directing board to be constituted.
15. Constitution of boards.
16. Industries in which women predominate.
17. Appointment of members on election.
19. Absence from meetings of board: penalty.
20. Oath to be taken by members and assessors.
21. Dissolution of board; term of office of members; election and appointment of new board.
22. Filling vacancies on boards.
23. Boards to act by consent though vacancy not filled.
24. Validity of appointments not to be challenged.
25. Fees of boards and of assessors.

Jurisdiction of Boards.

26. Mode of commencing proceedings before boards; applications by employers or employees.
27. Powers of board.
28. Currency of award.
29. Awards to be signed and published and operate from date of publication.
30. Evidence of award in *Gazette* notice.

Procedure of Boards.

31. Convening meetings.
32. Duties of boards.
33. Matters deemed trivial, or capable of settlement, may be dismissed: recovery of costs.
34. Powers of board to enter and inspect premises.
35. Conduct of proceedings.
36. Evidence to be given on oath.
37. Conditions as to presiding officers and votes; advocates and agents.

INDUSTRIAL DISPUTES, 1908—*continued*.

Clause.

Appeal from Board.

- 38. Conditions governing appeals.
- 39. Awards may be varied.
- 40. Power of Crown to intervene.

Enforcement of Awards and Penalties.

- 41. Recovery of price or rate fixed; orders tantamount to District Court judgment: Savings as to Masters and Servants Act, 1902.
- 42. Prohibition of strikes and lockouts: penalty.
- 43. Breach of award: penalty.
- 44. Unlawful dismissal of employee: penalty.
- 45. Proceedings for penalty before Industrial Court.
- 46. Liability of trade or industrial unions in case of strikes or lockouts.
- 47. Validity of award or order may be challenged.
- 48. Authority of court for prosecutions.
- 49. Recovery of penalties.
- 50. Appeal to Industrial Court from orders imposing penalties.
- 51. Award, and recovery of costs.
- 52. Decision of Industrial Court to be final.
- 53. Appropriation of penalties.
- 54. Perjury.

General and Supplemental.

- 55. Making orders for payment: recovery.
- 56. Appointment of Registrar.
- 57. Time and pay sheets to be kept.
- 58. Inspectors: appointment and powers.
- 59. Security for performance of award.
- 60. Notice to be given of changed conditions of employment: no alteration during proceedings before board.
- 61. Judge of Industrial Court to make regulations.

INDUSTRIAL DISPUTES (AMENDMENT), 1908.

- 3. Appointment of Chairman of Board.
- 5. Recovery of costs by process, in pursuance of judgment.
- 6. Appointment of assessors.
- 8. Adjournment of Court in absence of judge. Court may reserve decision.

INDUSTRIAL DISPUTES (AMENDMENT), 1909.

- 2. Necessary commodity to include coal, gas, water, or any article of food necessary to human life.
- 3. Imprisonment impossible for abetting strike or lockout.
- 4. Right of police to enter buildings used for purposes of lockout or strike. Meetings connected with strike or lockout to be unlawful. Liability to penalty for contract or combination in restraint of trade, or for monopoly.
- 5. Offences covered by proceedings under section 45 of principal Act.

INDUSTRIAL DISPUTES (AMENDMENT), 1910.

- 3. Orders for proceedings for offences, in contravention of award, or orders for recovery of rates and prices referable to Magistrate or to Registrar of the Industrial Court.
- 4. Additional powers of inspectors to examine employees and to institute proceedings.

LABOUR SETTLEMENTS, 1902.

- 3. (1) Establishment of labour settlements; dedication of available Crown lands; appointment of board of control.
(2) Incorporation of board; powers in relation to lease of land; provision for dissolution.
(3) Land leased or to be leased under this Act may be withdrawn for roads, school sites, recreation, &c.
- 4. Assessment and payment of rent by board.
- 5. Governor's power to remove trustees from board.
- 6. Duties of board.
- 7. Loans and repayment.
- 8. Advances may be made to board by Treasurer; conditions; proof of improvements.
- 9. Provision for advance equal to appraised value of improvements in settlements, initiated with moneys provided by enrolled members.
- 10. Powers of board; subleasing.

LABOUR SETTLEMENTS, 1902—*continued*.

Clause.

11. Regulations to be made by Governor regarding—
 - (a) Class of persons to be enrolled.
 - (b) Accounts to be kept by boards.
 - (c) Duties of boards.
 - (d) Other matters.
12. (1) Regulations to be made by boards regarding—
 - (a) Conduct of its business.
 - (b) Work to be done in the settlement.
 - (c) Finances.
 - (d) Order and government.

LIQUOR, 1898.

15. Prohibition of trading, except between 6 a.m. and 11 p.m.
63. Restriction of business to week-days: savings as to Good Friday and Christmas Day.

LIQUOR AMENDMENT, 1905, No. 40.

8. Supply of liquor to certain persons prohibited.
13. Barmaids to be of minimum age, 21 years.
15. Selling hours: election day to be close day: savings as to bye elections.
20. Meals and accommodation to be paid for; operation of Vagrancy Act.

MASTERS AND SERVANTS, 1902.

Remedies against Servants.

4. Servant not entering into service according to contract or absenting himself is liable to penalty, or forfeiture of wages due.
5. Fraudulent breach of contract involves liability to imprisonment.
6. Wilful or neglectful spoliation, destruction, or loss involves liability to pay compensation.

Remedies against Masters.

7. Wages, not in excess of £50, due and payable to any servant, are recoverable summarily with costs and damages.
8. An agent, manager, or overseer may be summoned for wages: provided a draft upon the employer for the amount and costs relieves agent from imprisonment in default.
9. Payment by cheque; if dishonoured no servant is thereby deprived of remedy for recovery.
10. Penalty on unlawful detention of servant's property by master.

General Provisions and Procedure.

11. Jurisdiction.
12. Penalty on harbouring deserting servants or inciting to desertion.
13. Differences between master and servant to be settled by award of magistrate or two justices.
14. Warrant not to issue, except on reasonable cause to believe defendant has absconded.
15. Clerk of petty sessions may issue summons.
16. Agreements may be proved as if there were no attesting witnesses.
17. Females not to be imprisoned, except as under Justices Act, 1902.

MINERS' ACCIDENT RELIEF, 1900.

Committees for Mines.

4. Appointment and constitution of committees.
5. Owners to deduct miners' contributions and to pay to committee.
6. Granting of allowances in case of death or disablement; payment of allowances; assignment void.

The Board.

8. Establishment.
9. Constitution.
10. Fees.
11. Powers and duties of boards.

The Fund.

12. Constitution and administration; payments into fund; temporary payments; disbursements.
13. Board's accounts to be audited.
14. Quinquennial actuarial investigation of fund; allowances and rates of contribution; insufficiency.

MINERS' ACCIDENT RELIEF (AMENDMENT), 1901.

Clause.

2. Extension of definition of mine to cover neighbouring works where mined material is treated.
3. Institution of joint committee for several mines.
4. Payment of contributions to fund where committee is not constituted.
5. Committees' expenses.
6. Owners contribution to represent one half of the aggregated deduction from wages of miners.
7. Disbursements.
8. Allowances and expenses.
9. Committee's power of disposal of moneys payable in respect of children.
10. Schedule of allowances extended.
11. No allowances to affect any claims under Employers' Liability Act, 1897.

MINERS' ACCIDENT RELIEF (VALIDATING), 1904.

2. Validation of appointment of certain officers.
3. Validation of appointment of certain committees and of their acts.

MINERS' ACCIDENT RELIEF (AMENDMENT), 1910.

3. Local inspector of mines to act on committee.
4. Minister's power to dissolve committee or remove member.
5. Check weighman and pickman to be covered by Act.
6. Variation of allowances.
7. Grants of allowances may be reconsidered by committee, or inquiry held.
8. Continuance of payment of allowance, after closing of mine.
10. Examination of applicants by specially appointed medical practitioners.
12. Extension of definition of mine.
13. Contribution for mine in which less than fifteen persons are employed.
15. Extension of allowances.
17. Liability of owner, manager, or contractor for failure to deduct contributions.

MINES INSPECTION, 1901.

1. Application to all mines except coal and shale; provision for exemptions.
3. Savings as to exemptions granted under earlier enactments.

Managers and Engine-drivers.

Managers.

5. (1) and (2) Appointment of manager of mine.
- (3) Qualifications.
- (4) Permits.
- (5) Temporary appointments.
- (6) Penalties for working without a manager.
6. (1) Board of examiners for managers.
- (2) Regulations to be made regarding procedure of board and holding of examinations.
7. Certificates of competency to be granted.
8. Certificates of service as managers.
9. Certificates granted outside New South Wales may be approved and registered.
10. Form of certificate.
11. Register of certificates.

Engine-drivers.

12. Penalty on unqualified person taking charge of machinery.
13. Board of examiners for engine-drivers.
14. Certificates of competency as engine-drivers.
15. Certificates of service as engine-drivers.
16. Certificates granted outside New South Wales.
17. Specifications in certificates.
18. Register of certificates.

Managers and Engine-drivers.

19. Inquiry into conduct of manager and engine-driver, and cancellation of certificate in case of unfitness.
20. Costs and expenses of inquiry.
21. Record of cancellation of certificate; restoration in certain cases.
22. Copy of certificate in case of loss.
23. Expenses in relation to certificates and payment of fees to Treasury.
24. Penalty for forgery of, or false declaration as to, certificate.

MINES INSPECTION, 1901—*continued.**Employees.*

Clause.

Wages.

25. Prohibition of payment of wages at public houses or any place connected with the sale of spirituous or fermented liquor; penalty.

Restrictions on employment.

26. Boys under 14 years and females shall not be employed in or about a mine; limitations upon boy's work; experience prior to employment in the face of the working.
 27. Temporary saving as to employment of minors employed before commencement of the Act.
 28. Register of boys: employment to be reported to the manager.
 29. Persons other than owners or persons acting in the management of a mine shall not be employed below ground for more than eight consecutive hours, nor for more than forty-eight hours in any week except in cases of emergency.
 30. Regulation of employment of persons in charge of machinery: penalty for negligence.
 31. Employment of persons in contravention of the Act: penalty; special circumstances; liability for misrepresentation as to age.

Inspection and management.

Inspection.

32. Existing inspectors continued; appointment of qualified inspectors.
 33. Division into districts or localities.
 34. Disqualifications for inspectorships.
 35. Penalty against inspector divulging information.
 36. Powers of inspectors; obstruction of inspectors.
 37. Notice to be given by inspector to owner or manager of any cause of danger; proceedings if defect not remedied: penalty. Copy of notice to be transmitted to Minister.
 38. Notices and directions of inspectors, and action taken, to be recorded in a book and signed by manager; records to be available to inspectors.
 39. Special reports of inspectors in case loss of life or personal injury.
 40. Annual report of inspectors.
 41. Plans and sections of workings to be deposited; check surveys; owner liable for costs in case of material variation; failure to deposit plans, &c.; failure to comply with inspector's demand for plan.
 42. Abandoned mines; deposited plans required.
 43. Notice to be given in case of accident.
 44. Opening and abandonment of mine: notice required.
 45. Protection of abandoned mine.

Boilers.

46. Licenses to be granted to engineers to inspect and give certificates as to fitness of boilers; certificate before boiler built in; definition of boiler.

Accidents at mines.

47. Coroner's inquests on deaths from accidents in mines.

Lead Poisoning.

48. Governor to make regulations.

Drainage of mines.

49. Interpretation; alluvial lead; machinery; owner of machinery.
 50. Powers of owners of pumping machinery to require contribution from owners of claims for drainage thereof.
 51. Calculation of expense of drainage.
 52. Exemptions from drainage dues; determination of amount of contribution; credit to be given for work done by owners.
 53. Warden's order: not barred for want of form.
 54. Filing and enforcement of Warden's order in mining appeal court of district; certified order to be leviable on property of mine-owner: Warden's power to restrain sale.

MINES INSPECTION, 1901—*continued.**Rules.*

Clause.

General Rules.

55. Ventilation; escape drives; use of explosives. Change in shift; inspection at change of shift; manager's daily inspection; withdrawal of workmen in case of danger. Inspection by miners' representative. Control of machinery; condition of machinery: fencing. Gauges to boilers and safety valves; cleansing of boilers: means of signalling for working shafts. Verbal signals. Danger signal line. Clear view for engine-driver. Signalling along drives in alluvial drives. Signalling and manholes for travelling planes worked by machinery. Employees to be acquainted with signals. Code of signals: manholes for other travelling roads: manholes in shafts. Manholes to be kept clear. Fencing of entrance to shafts and of abandoned shafts or dangerous excavations. Doors at plats. Horizontal bar in case fence or cover is temporarily removed. Securing of shaft. Drive and excavation to be protected. Protected lights in main drives. Division of shaft: cages in shafts; cover overhead. Carriage of materials in cages with persons: safety catches and hooks; monthly examination; clearance. Testing safety cage and rope or chain. Gates in haulage shafts. Coupling chains. Brakes and indicators. Rate of speed; protection in ascent or descent; rope slipping; spring catches or tumblers on skids. Restricted use of whip. Protection in braces: open hooks prohibited. Ladder-way compulsory. Boring rods. Escape drives in alluvial mines. Dressing rooms. Angle of batter in open cut. Undermining face of open cut. Stretchers. Observance of directions. Supply of books of rules, &c. Wilful damage.
56. Governor to make and amend general rules.
57. Non-compliance with rules.

Special Rules.

58. Inspectors to direct formulation of special rules.
59. Conditions governing formulation.
60. Chief Inspector's power of objection.
61. Amendment of special rules.
62. False statements, and neglect to transmit special rules.
63. Certified copy of special rules in evidence.
64. Special rules may be made by Governor.

Publication of Rules.

65. Abstract of Act, and special rules to be posted up, and supplied to employees.
66. Pulling down or defacing notices.

Legal Proceedings.

67. Offences: penalty.
68. Imprisonment for wilful neglect, endangering life and limb.
69. Summary proceedings for offences, fines, &c.; general provisions.
70. Appeal against conviction.
71. Authority for prosecution of owners, managers, &c.
72. Result of proceedings against workmen to be reported to inspector.
73. Savings as to proceedings under other Acts.
74. Application of fines.
75. Service of notices.

Miscellaneous.

76. Minister to decide whether mine is under this Act.
77. Right of Government Geologist and Geological Surveyors to enter and examine mines.
78. Minister's power to make and revoke orders.
79. Employees to notify employers of breaches of Act.
80. Entry on adjoining mines, &c., to discover encroachments, &c. Action under authority: prior statutory declaration compulsory. Provision for cost of inspection.

MINIMUM WAGE, 1908.

3. Definition of overtime.

Minimum wage.

4. Minimum wage (4s. per week irrespective of overtime) for workmen and shop assistants: penalty.
5. Premium or bonus barred in certain occupations. Recovery: penalty.

MINIMUM WAGE, 1908—continued.

Clause.

Overtime and tea money.

6. (1) Minimum overtime pay—payable at maximum intervals of one month.
- (2) Exemption of males under 16 years of age.
- (3) Claims for overtime payments may be made under this Act, or under section 73 of Factories and Shops Act, 1896.
- (4) Penalties.
7. Amendment of section 37 of Factories and Shops Act, 1896, to enforce monthly payment of overtime money.
8. Tea money in case of overtime work of males under 16 years or females. Penalty.

Supplemental.

9. (1) Records to be kept by employers, and to be open to inspection.
- (2) Penalty.
10. (1) Powers of inspectors.
- (2) Penalty for obstruction of inspector.
11. Regulations to be made.
12. Contraventions to be reported.

Proceedings.

13. Recovery of penalties.
14. Savings as to members of employer's family.

MINING, 1906.

4. Establishment and control of schools of mines and museums.
5. Proclamation of gold-fields and mining districts.
7. Savings as to beneficial interest of officers.
8. Savings as to Royal prerogative.

Miners' rights and business licenses.

9. Issue of miners' rights.
10. Issue of business licenses.
11. Renewals.
12. Transfers.
13. Duplicates.
14. Exempted Crown lands.
15. Rights conferred by miners' rights.
16. Residence areas.
17. Authority to prospect; report of discovery.
18. Rights conferred by business licenses.
19. Tenement holders to register.
20. Division of interest; amalgamation; assignment.
21. Rights held on behalf of owners.
22. Default to contribute.

Leases of Crown Lands.

23. Granting of leases.
24. Conversion of applications.
25. Conditions of applications.
26. Priority of applications.
27. Irregular applications; modifications; refusal.
28. Occupation by and rights of applicant.
29. Claiming damages.
30. Pendency of application.
31. Survey of land.
32. Lodging and service of objections.
33. Procedure.
34. Inquiry by Warden.

Conditions.

35. Area and dimensions of leases.
36. Rent and royalty.
37. Labour conditions.
38. Duration and renewal of leases.
39. Savings as to renewals from repealed Acts.

Special leases.

40. Conditions.

MINING, 1906—*continued.*

Clause.

Minerals not included in lease.

- 41. Authority to mine for minerals not specified: unauthorised mining.
- 42. Mining for gold under mineral lease.
- 43. Mining for other minerals under gold-mining lease.

Ownership of tailings and ore.

- 44. Tailings on abandoned Crown land.

Mining on Private Land.

- 45. Interpretation.

Lands open to mining.

- 46. Mining for gold and other metals: minerals: exemptions.
- 47. Restriction on authority to enter gardens or improved land.
- 48. Exemption of surface of cultivated land.

Authority to enter.

- 49. Interim permits.
- 50. Application for and grant of authority.
- 51. Rent: compensation: non-payments.
- 52. Duration and extension of authority.
- 53. Areas and extension.
- 54. Lawful prospecting: contravention of conditions; labour.
- 55. Residences.
- 56. Occupation after cancellation of authority.

Leases.

- 57. Mining leases: conditions governing issue.
- 58. Refusal of leases.
- 59. Stipulations in leases.
- 60. Leases for mining purposes: interim permits: special provisions.
- 61. Leases of surface.
- 62. Terms of leases.
- 63. Extent.
- 64. Rent and compensation.
- 65. Rights and duties of lessees.
- 66. Restrictions.
- 67. Impounding or molesting stock.
- 68. Prospecting by owner; no preferential rights.
- 69. Lease by owner.
- 70. Owner mining or contracting for mining.

Resumption.

- 71. Coal and shale lands.
- 72. Private lands.
- 73. Notification of resumption.
- 74. Preferential rights of discovery.
- 75. Rights of former owners.
- 76. Resumption of lands held without reservation of minerals.

Compensation.

- 77. Assessment of compensation for resumption.
- 78. Claims to payment.
- 79. Payment.
- 80. Costs.
- 81. Interest.

General Provisions.

- 82. Royalties.
- 83. Right of way.

Dredging Leases.

- 84. Interpretation.
- 85. Application.
- 86. Leases.

MINING, 1906.—continued.

Dredging Leases—continued.

Clause.

87. Marking of land: authority.
88. Entry in pursuance of authority.
89. Interim possession.
90. Applications for leases.
91. Inquiry by Warden.
92. Inquiry by Minister.
93. Reports to Minister.
94. Minister's power to grant or refuse lease, and specify conditions.
95. Warden's order for necessary roads or sites.
96. Warden's order for other roads or sites.
97. Rent—first year's payment.
98. Rent and royalty.
99. Grant of lease.
100. Right to water.
101. Penalty for anticipating lease.
102. Authority to holder of miner's right.
103. Washing dirt.

Tenements and Leases Generally.

104. Leases for railways and tramways for mining purposes.
105. Suspension of pastoral lease.
106. Exemption of Crown lands from alienation.
107. Execution of lease.
108. Form and conditions of lease.
109. Registration.
110. Construction of works on roads.
111. Tunnels.
112. Easement over Crown lands to continue notwithstanding alienation.
113. Suspension of labour conditions.
114. Exemption.
115. Returns of minerals won.
116. Coal-mining lessees.
117. Reward areas.
118. Amalgamation of leases.
119. Encroachment.
120. Inspection by mining surveyor as to encroachment.
121. Surveyor's declaration.
122. Sludge abatement.
123. Surrender of leases.
124. Cancellation.
125. Removal of machinery.
126. Surveyor to define road.
127. Inquiries.
128. Inspections.
129. Nature of holding and evidence of title.
130. Mining towns.

Wardens' Courts.

Jurisdiction.

131. Establishment of Wardens' Courts.
132. Register to be kept.
133. Jurisdiction.
134. Wages to be a first charge.
135. Decisions; finality.
136. Suitor to hold miner's right or lease.
137. Minors may sue.

Hearing and Procedure.

138. Instigation of case.
139. Hearing.
140. Amendment of proceedings.
141. Adjournment, in absence of Warden.
142. Payment into court.
143. Subsequent proceedings.

MINING, 1906—*continued.*

Clause.

Orders.

- 144. Payment by instalments.
- 145. Complaints for injury to property.
- 146. Deposit pending decision.
- 147. Injunctions.
- 148. Delivery of specific chattels.
- 149. Costs.

Execution.

- 150. Form and service of orders.
- 151. Writ of execution.
- 152. Writ to be obeyed: seizure by bailiff.
- 153. Order for delivery of gold or mineral in possession.
- 154. Enforcement of orders not specially provided.

Assessment of Compensation.

- 155. Method of assessment.
- 156. Procedure in court.
- 157. Additional assessments.
- 158. Appeal to arbitration.
- 159. Appeal against assessment.
- 160. Rules and orders on appeal.

Appeals.

To District Court.

- 161. Right of appeal from Warden's Court.
- 162. Hearing.
- 163. Procedure.
- 164. Injunction and stay of proceedings.
- 165. No costs on appeal under £20, unless special circumstances.
- 166. Enforcement of decision after appeal.
- 167. Appeal to Supreme Court.

Supreme Court.

- 168. Stating case.
- 169. Security to be provided by appellant.
- 170. Warden's refusal to state case.
- 171. Direction of Supreme Court.
- 172. Appellant to give notice.
- 173. Powers of Supreme Court.
- 174. Powers of Judge in Chambers.
- 175. Enforcement of order as Warden's order.
- 176. Abandonment of appeal to District Court.

General Provisions.

- 177. Conditional purchases conversion.
- 178. Notices.
- 179. Documents and affidavits.
- 180. Contempt of court.
- 181. Interpleader.
- 182. Recovery of fees.
- 183. *Certiorari* prohibited.

Regulations and Rules.

- 184. Regulations to be prescribed.
- 185. Power to make rules of practice.
- 186. Rules and regulations to be laid before Parliament.

Penalties.

- 187. Unauthorised mining.
- 188. Unauthorised occupation of Crown land.
- 189. Breach of regulation.
- 190. Witness neglecting to appear.
- 191. Disobedience of order.

MINING, 1906—continued.

Penalties—continued.

Clause.

- 192. Obstruction of Warden.
- 193. Wrongful exaction of money.
- 194. Forgery of documents.
- 195. Wrongful obstruction on private lands.
- 196. Wrongful mining on private lands.
- 197. False quantity or value.
- 198. Recovery of penalties: civil remedies to remain.

MINING (AMENDMENT), 1907.

- 2. Rent for leases in force at commencement of Principal Act.
- 3. Minor Amendments, Principal Act.

MOTOR TRAFFIC, 1909.

- 3. Regulations to be made governing use of motor vehicles.

Offences.

- 4. Negligent, furious, or reckless driving.
- 5. Duties of police; identification of driver.
- 6. Driver to be licensed and vehicle numbered.
- 7. Unlawful transfer of license.
- 8. Accidents.
- 9. Production of licenses in Court.
- 10. Penalties for convictions; suspension of licenses.

General and Supplemental.

- 11. Conflicting by-laws; superiority of Act.
- 12. Records of registrations and licenses.
- 13. Publication of regulations.
- 14. Compensation for damages.
- 15. Compensation for loss of time.
- 16. Application of Act to officers of Crown.
- 17. Savings as to common law or statute liability.
- 18. Facilitation of proof in proceedings.
- 19. Recovery of penalty.

POLICE OFFENCES, 1901.

- 16. Business hours of houses for public resort generally to be 6 a.m. to 12 p.m.
- 61. Prohibition of Sunday trading: exemptions.

POOR PRISONERS' DEFENCE, 1907.

- 2. Provision for legal aid for poor persons.

PURE FOOD, 1908.

Abstract.

- 5. Adulteration, or false description.
- 6. Institution of an Advisory Committee.
- 10. Sale of adulterated food or drugs.
- 11. Mixing food or drugs, so as to be injurious to health.
- 12. Mixing food or drugs, so as to increase bulk.
- 13. Sale of mixtures.
- 14. Labels to show description, weight of contents, &c.
- 15. Liability of person named on packages.
- 16. Examination and reports on food, &c., advertised.
- 17. Prohibition of sale of injurious drugs or appliances.
- 18. Sale of disinfectants and preservatives.
- 19. Labelling.
- 21. Prohibition of sale of milk from diseased cow.
- 22. Entry and inspection, removal of food, &c.
- 23. Purchase of samples for analysis.
- 26. Analysis by direction of Councils.
- 27. Appointment of analysts.
- 28. Analysts acting for local authorities.
- 29. Certificate of analyst as evidence.
- 31. Mode of determining strength of liquors.
- 32. Disqualification of analyst for infringement of regulations.

PURE FOOD, 1908—*continued*.*Abstract—continued.*

Clause.

35. Analysis not to be used for trade purposes.
39. Articles of food, &c., liable to forfeiture.
46. Onus of proof.
47. Guarantee a defence to prosecution; penalty on guarantor.
48. Liability of agent or servant in addition to principal.
50. Prosecution of employee for selling adulterated articles.
52. Suggestive names for articles of food.
53. Publication of names of offenders.

RAILWAY SERVICE SUPERANNUATION, 1910.

4. Deductions from salaries: maximum 12 per cent.
5. Institution of Government Railways Superannuation Account.
6. Conditions governing granting of allowances.
7. Period and amount of allowance.
8. Abatements on allowances for existing officers.
9. Gratuities to officers incapacitated.
10. Gratuities to officers compelled to retire.
11. Reports on officers unfit for duty.
12. Medical examination of officers receiving allowances or gratuities: restoration to health and resumption of duty.
13. Refunds on account of officers dying while on service.
14. Refunds on account of officers dying shortly after retirement.
15. Refunds on voluntary retirement.
16. Limits to amount of allowance or gratuity.
17. Payments to be certified by Board.
18. Officers dismissed for misconduct.
19. Surrender or transfer of officer's policy of insurance.
20. Certain determinations of board to be final.
21. Allowances not to be assigned or charged.

REGISTRATION OF FIRMS, 1902.

4. Firms and persons to be registered.
5. Manner and particulars of registration.
6. Attested statement required; fee.
8. Changes in constitution of firm.
9. Re-registration on change of firm name.
10. Penalty for default in registration.
12. Proceedings against non-registered firms.
13. False returns: penalty.
14. Informations for offences.
15. Registrar-General to file statement and issue certificate of registration.
16. Register and index to be kept.
17. Statements to be available for inspection: fee; certificate of registration to be admitted as *prima facie* evidence.
18. Registrar-General to reply to postal inquiries.
19. Registrar-General to report offences against Act.

SATURDAY HALF-HOLIDAY, 1910.

2. Incorporation with Early Closing Act, 1899, and amendments.
3. Closing time of non-scheduled shops in Metropolitan, Newcastle, and county of Northumberland shopping districts, viz., Saturday, 1 p.m.; Friday, 10 p.m.; other week days, 6 p.m. Savings in case of holiday occurring.
4. Penalties.
5. Power to extend the Act to country shopping districts by proclamation, based on a resolution of both Houses of Parliament.

SCAFFOLDING AND LIFTS, 1902.

5. Notice required prior to erection of scaffolding, engine or steam crane. (Amendment Act, 1908). Penalty: emergencies.
6. Scaffolding to be in accordance with regulations.
8. Notice required prior to erection of lifts. Penalty.
9. Periodical inspections: right of entry of inspector; appeal against inspector's orders.
10. Inspector may give directions, and order work to cease.
11. Driver of steam crane to hold certificate. Government Architect may grant or cancel certificates.

SCAFFOLDING AND LIFTS (AMENDING), 1908.

Clause.

2. Extension of Principal Act to cover engine or steam crane.
3. Details as to regulations.
4. Passenger lifts: authorised attendant to be in charge; name of attendant to be shown on lift.
5. Inspector's power to suspend incompetent attendant.

SEAMEN'S, 1898.

6. Appointment of shipping masters at ports.
7. Duties of shipping masters.
8. Fees payable to shipping masters on engagements and discharges.
9. Shipping master to hear and decide questions referred by parties: his award binding.
10. In such proceedings shipping master may call for ship's papers, and summon witnesses: penalty.
13. Indentures: mode of execution and attestation.
14. Indentures to be in duplicate; records to be kept by shipping master; assignment of indentures: penalty for infringement.
15. Apprentices from charitable institutions.
16. Apprentices on foreign-going ships: records in ship's articles: penalty for default; apprentices on interstate ships.
17. Agreements to be made; details and stipulations; duplicates.
18. Seamen to be engaged before shipping master or on board the ship in which they are to serve. Attestation of agreements: production of discharges.
19. Rules respecting agreements: foreign-going ships.
20. Running agreements: fees payable.
21. Running agreements: duplicates.
22. Special agreements for interstate ships of same owners. Twenty-four hour interval on changing ship.
23. Penalty for shipping seamen without agreement duly executed.
24. Changes in crew to be reported: penalty.
25. Alterations in agreements voided unless attested as made with consent of parties; proof of consent.
26. Falsifying agreements: penalty.
27. Seamen not bound to produce agreement.
28. Unsigned copy of agreement to be posted on board.
29. Compensation for discharge before termination of agreement.
30. Penalty for unlawfully supplying seamen, or employing others so to do, or receiving seamen unlawfully supplied, or receiving remuneration from seamen for shipping them.
31. Pacific Islanders to be engaged before shipping masters. Agreements unenforceable if not made before shipping master or consul.
32. Procedure in making agreements with islanders: stipulations; duplicates: explanation by shipping master.
33. Contravention: penalty. Limitation regarding proceedings.
34. Pacific Islanders to be discharged and paid before shipping masters: penalty.
35. Mode of discharging seamen; shipping master to retain discharge till applied for: penalty.
36. No discharge necessary on immediate re-engagement.
37. On discharge, master to deliver account of wages: deduction not allowed unless on account; to be recorded in master's book; production.
38. Loss or absence of discharge; license to ship.
39. Master to report as to character of seamen discharged; false discharges or reports.
40. Right to wages: commencement.
41. Inalienable right to recovery of wages, and to lien upon ship for such recovery; stipulations abandoning rights to be void; exemption of salvage service.
42. Wages not to be dependent on the earning of freight; saving wreck or loss of ship.
43. Sale of and charge upon salvage on wages invalid. Payment good as against assignment, attachment, &c.
44. Right to wages in case of termination of service by wreck or illness.
45. Wages not to accrue during refusal to work or imprisonment.
46. Wages to be paid within given time limit; exemption in case of profit-sharing adventures: penalty.
47. Payment of wages to seamen left behind on ground of inability; indorsement on bill drawn on owner; absence of full account; false account.
48. Rules for settlement of wages: release signed before, and attested by, shipping master: to act as discharge, and to be evidence; no other receipt to operate as discharge: voucher to be given to master.

SEAMEN'S, 1898—*continued*.

Clause.

49. Ascertaining amount of forfeiture.
50. Questions of forfeiture may be decided in suits for wages.
51. Proving desertion as concerning forfeiture of wages.
52. Costs of procuring conviction may be deducted from wages.
53. Allotment notes: stipulations necessary in agreements.
54. Relatives may sue summarily upon allotment notes: procedure: evidence: forfeiture; deserting wife voids her rights.
55. Seamen may sue summarily for wages not exceeding £50: orders payable within limited time: no appeal from orders.
56. Restrictions on suits for wages in superior courts.
57. Master's remedies similar to seaman's: Court of Admiralty may decide counter claims.
58. Master to take charge of or sell effects of deceased seamen left on board; records in log.
59. Effects and wages to be delivered to shipping master with full account.
60. Infringement; owner to account on default of master: proceedings in recovery of wages and effects.
61. Wages and effects of seamen dying in New South Wales.
62. Wages and property of less value than £50 may be paid over without probate or administration; Minister may require probate.
63. Wages and effects valued in excess of £50 to be paid to legal personal representative.
64. Payments under wills made by seamen.
65. Payment of just claims by creditors: prevention of fraudulent claims.
66. Unclaimed wages of deceased seamen; to be paid into Treasury; rights after six years.
67. Punishment of forgery and false representations to obtain wages and property of deceased seamen.
68. Recovery of wages, &c., of seamen lost with their ship.
69. Chest of medicine to be kept on board; annual overhaul and replenishment; penalty.
70. Lemon juice, sugar, and vinegar to be kept on board and served out; default of owner.
71. Masters to keep weights and measures.
72. Allowance for short or bad provisions; substitutes.
73. Expenses of medical attendance, &c., to be defrayed by owner; except in cases of misconduct of seamen, &c.
74. Wrongfully leaving seamen behind: misdemeanour.
75. Discharging or leaving seamen without sanction of responsible official.
76. Onus of proof of sanction or certificate to lie upon master.
77. Penalty for overcharge by lodging-house keeper.
78. Penalty for detaining seamen's effects.
79. Penalty for boarding a ship before actual arrival at place of discharge.
80. Penalty for solicitation by lodging-house keeper, or for removal of seamen's effects.
81. Misconduct endangering ship, or life, or limb.
82. Offences of seamen and apprentices: desertion; neglecting to join ship; quitting; disobedience; assault; combining to disobey; wilful damage or embezzlement; smuggling.
83. Absence without leave for institution of legal proceedings: penalty on master or officer for refusal of such leave; limitations.
84. Entry in log of offence and offender's defence.
85. Deserters may be sent on board in lieu of imprisonment.
86. Penalty for false statement of name, or last ship.
87. Penalties for enticing to desert and for harbouring deserters.
88. Desertion to be prosecuted, after departure of ship, by shipping master.
89. Penalty on deserting seaman for secreting himself on board any other ship.
90. Drunk or disorderly seamen may be given in custody by master.
91. Detention of seamen deserting from one ship to another: limitations.
92. List of crew to be delivered to shipping master on arrival of ship.
93. Masters of foreign-going vessels to supply to shipping master verified copies of ship's articles, and of entry of desertions. Penalty.
94. Coasters liable to be searched for deserters: penalty for obstruction.
95. A man to be at all times in charge of deck, and respond to challenges by police or Customs: penalty.
96. Masters, before clearing, to deliver lists of crew and passengers, &c.: penalty; exemption if on Customs house clearance.
97. Persons found on board after clearance may be detained.
98. Vessels not to put to sea till searched, not to cast anchor after search in limits of port: exceptions: penalty.
99. Penalty on master of vessel for concealing a person on board.

SEAMEN'S, 1898—*continued.*

Clause.

100. Persons dying on board ship, in port or harbour, to be buried ashore.
101. Insubordination upon vessels in port.
102. Persons going alongside or aboard between sunset and sunrise.
103. Damaging boats: penalty.
104. Obstructing or resisting search for offenders.
105. Vessels may be boarded and searched.
106. Appropriation of penalties.
107. Appeal to Quarter Sessions: time limits.
108. Costs against unsuccessful appellant: indemnity to justices.
109. No certiorari; process not to be void: by defects.
110. Penalty on witnesses.
111. No action to lie against peace officers without proof of malice; defendants' costs.
112. Governor to make regulations.
113. Police boats to patrol Port Jackson.
114. Magistrates' power to cancel waterman's license.
115. Printed forms to be supplied by shipping masters.
116. Penalties for offences not specified.
117. Recovery and application of penalties.
118. Documents may be proved without calling attesting witnesses.
119. Sums ordered to be paid leviable by distress, on vessels.

SECOND-HAND DEALERS AND COLLECTORS, 1906.

3. Dealers to be licensed.
4. Applications for license or transfer: currency.
5. Notice to be given: police may show cause.
6. Applications to be made by proposed transferee.
7. Endorsement of transfer upon license.
8. Name to be painted outside premises; entry to be made on letting truck; records to be kept of old wares purchased or received, sold, or disposed of; police to be notified regarding supposed stolen articles; form of old wares not to be changed for five days.
9. Dealer to operate only on licensed premises; dealer to produce license on demand; trucks to be lent to licensed collectors only; charges not to be excessive; old wares not to be purchased from persons under age 14; restriction of hours.
10. Collectors to be licensed; license not to issue to persons under age 14; currency of license; fee.
11. Collector's address to be notified; change of address; license to be shown on demand. Special wares to be kept for four days.
12. Licenses not to be hired; hours of business; trucks to show address; to be attended by two persons only; entry to, and departure from, premises at command; good behaviour; license void on second conviction; arrest without warrant.
13. No person to act as collector without being licensed; license not to be hired; only licensed dealers to purchase old wares; only licensed collectors to accompany truck.
14. Expiry of license.
15. Presumption that persons are unlicensed.
16. Presumption of possession of old wares.
17. Presumption that records in dealer's book were made by him.
18. License may be revoked.
19. Register of licenses to be kept at each licensing court.
20. Right of entry of inspectors, &c., to dealer's premises.
21. Search may be authorised.
22. Suspicious offering of old wares.
23. Proceedings for offences.
24. Matters to be provided for by regulations.

SHEARER'S ACCOMMODATION, 1901.

2. Savings as to sheds employing less than six shearers.
4. Division into districts.
5. Appointment of inspectors.
6. (1) Sufficient accommodation in buildings apart from shearing shed.
(2) Requirements as to proper and sufficient accommodation.
7. (1) Buildings, other than shearing sheds, to be kept clean by shearers.
(2) Shearers not to permit buildings to be damaged.
(3) Shearers to be responsible for costs of cleaning and repairing.

SHEARERS' ACCOMMODATION, 1901—*continued*.

Clause.

8. Shearing sheds and buildings shall be inspected and reported upon at least once per annum.
9. Inspector's rights of ingress and egress.
10. Notice to comply with Act in cases of inadequate accommodation.
11. (1) Failure to comply: complaint to a justice, and summons.
(2) Order of court on such complaint.
(3) Penalty on failure to carry out order.
12. Obstruction of inspector.
13. Notice of shearing to be delivered to inspector.
14. Hearing of information in Court of Petty Sessions; penalties.

SUBVENTIONS TO FRIENDLY SOCIETIES, 1903.

3. (1) Payment of subventions out of moneys provided by Parliament.
(2) Applications for subventions.
4. Subvention for sick pay: rates, and limitations.
5. Subvention for medical attendance.
6. Subvention for funeral donations.
7. Application of subvention funds: statements in proof.
8. Tabulation of returns received, under the Friendly Societies Acts; Registrar's certificate.
9. Conditions precedent to payment of subventions.
10. Commencement of the Act: claims admissible.
11. Claims preferable: time limit.
12. Trustees of societies to supply any information required.
13. Penalty for misstatements; adjustment on account of errors.
14. Penalty for misapplication of subvention moneys.

TRADE UNIONS, 1881.

2. Trade union not criminal.
3. Trade union not unlawful for civil purposes.
4. Enforceability of contracts.
5. Savings as to certain Acts.

Registered Trade Unions

6. Registry.
7. Power to purchase or lease buildings.
8. Property vesting in trustees.
9. Actions by or against trustees.
10. Limitation of responsibility of trustees.
11. Provision in case of absence of trustees.
12. Accounts.
13. Withholding moneys.

Registry of Trade Unions.

14. Regulations for registry.
15. Withdrawal or cancellation of certificate.
16. Provisions of rules.
17. Registered office.
18. Annual returns.
19. Membership of minors.
20. Nominations.
21. Change of name.
22. Amalgamation.
23. Registration of change of name and amalgamations.
24. Dissolution.
25. Failure to supply returns and notices.
26. Registrars.
27. Circulating falsified rules.

Legal proceedings.

28. Summary proceedings.
29. Appeal to Quarter Sessions.
30. Interested persons not to act as Court of Appeal.

TRUCK, 1900.

Clause.

1. (1) Wages payable in money only; advances due by agreement, by custom, or otherwise not to be withheld; no deduction to be made on account of poundage, discount, interest, &c.
- (2) Contracts made in contravention of this section so far voided; such promises or consideration to be severable from other parts of the contract.
2. Employer not to be a party to any contract stipulating the mode of spending wages nor to require workmen to reside upon the lands of such employer; employer not to dismiss any workman from his employ on account of such matters.
3. The entire amount of wages to be paid in money, and, if demanded, at intervals not exceeding fourteen days; every workman shall be entitled to recover from his employer, in any court of competent jurisdiction, such wages earned as have not been paid in money.
4. No set off allowable to defendant employer for goods supplied to a workman by the employer directly, or by his order.
5. Employer not to have any right of action for goods supplied to his workmen.
6. No deduction to be made from wages for sharpening or repairing tools, except by agreement.
7. Payment of wages may be made by cheque, with consent of workman; remedies of workman; in case of dishonour, workman may recover wages and reasonable damages, in any court of competent jurisdiction.
8. Service of legal process to be effected by delivery to manager or overseer of works; other legal modes of service not barred.
9. Penalties for breaches of the Act.
10. Savings—
 - (1) As to contracts to supply—
 - (1) Medicine, fuel, tools, implements, &c.
 - (2) Tools, outfit to bushmen to extent of two months' wages.
 - (3) Provender for horses.
 - (4) Use of tenement, or house, or other privileges.
 - (5) Advances of money in cases of sickness.
 - (2) Seamen, domestic servants, and persons employed in agricultural and pastoral pursuits are not bound by this Act.

TRUCK ACT AMENDMENT, 1901.

1. Savings—clause 10, Principal Act. (6) Subscriptions to hospitals, county Yancowinna.

WORKMEN'S COMPENSATION, 1910.

3. Application to employment, in—
 - (a) Stated (hazardous) callings.
 - (b) Other employments, declared to be dangerous.
4. Application to employees by or under the Crown.
5. Liability of employers; subject to Schedule 2.
6. Savings as to employers' liability in case of—
 - (a) Incapacitation for less than two weeks.
 - (b) Serious or wilful misconduct of the workman.
7. Procedure in recovery of compensation—
 - (a) Under District Courts Act, 1901.
 - (b) Under Small Debts Recovery Act, 1899.
8. Right of workmen—
 - (a) No bar as to civil liability of employer.
 - (b) Optional claim under this Act, or independently.
9. Procedure when action wrongly brought.
10. Proceedings for fines not affected.
11. Deductions from compensation.
12. Notice of accident and of proceedings.
13. Form and service of notice.
14. Contracting out.
15. Sub-contracting.
16. Claims of workmen in case of bankruptcy of employer, or winding up of a company; first charges.
17. Remedies against employer and stranger—
 - Recovery of damages and compensation barred; indemnity of sub-contractor.
18. Existing contracts.
19. Annual returns, specifying injuries and compensation paid; penalty.

WORKMEN'S COMPENSATION, 1910—*continued.*

Clause.

Schedules.

I. Members of workman's family.

1. Scale and conditions of compensation when—
 - (1) Death or
 - (2) Total, or partial, incapacity } results from injury.
2. Calculation of "average weekly earnings."
3. Fixing amount of weekly payment.
4. Payment to representatives or dependents.
5. Settlement by court.
6. Investment or application of compensation.
7. Remarriage or misconduct of widow.
8. Medical examination of workman after notice of accident.
9. Medical examination of workman receiving weekly payments.
10. Regulations as to medical examination.
11. Review of weekly payments.
12. Payment of lump sum.
13. Compensation not assignable.
14. Payments to minors.
15. Suspension of right to compensation.

POSTS AND TELEGRAPHS.

UNDER the provisions of the Commonwealth of Australia Constitution Act, the control of the postal, telegraphic, and telephonic services became vested in the Commonwealth, and by proclamation these services were taken over on the 1st March, 1901, and the Commonwealth Post and Telegraph Act, 1901, was assented to on 16th November, 1901. The system of administration and the rates levied in each State at the date of federation continued in force until the Commonwealth Post and Telegraph Rates Act, 1902, was brought into operation on the 1st November, 1902, this measure securing uniformity in all the States of the rates charged for the conveyance of newspapers and transmission of telegrams. The postage rates on letters, letter-cards, printed papers, books, and magazines within each State were still continued until the 1st May, 1911, when, by the Postal Rates Act, 1910, complete uniformity of postage rates was established. The Act provided for penny postage on letters within the Commonwealth. From the 1st May, 1911, also, the rate of postage for letters from the Commonwealth to any part of the British Empire has been 1d. per $\frac{1}{4}$ oz. The Postmaster-General's Department is prepared to establish a reciprocal penny letter post with any country which is willing to join in such an arrangement.

Although the Post Office is now exclusively controlled by the Commonwealth, it is apparent that in any statistical account of New South Wales special reference should be made to a service which is intimately associated with the commercial and social life of the State.

Taking into consideration the large area of the State, New South Wales possesses an excellent system of postal and telegraphic communication. The interstate system is good, and New South Wales is in direct communication with Europe and the rest of the world by means of the cables connecting with the various Asiatic, Continental, and the Canadian and South African telegraph lines, and the State is also connected with New Zealand.

A wireless telegraph station, with a range of 1,400 miles, has been constructed at Pennant Hills, near Sydney.

The history of the Postal Department is most interesting, since it affords a striking illustration of small beginnings leading to great results. No means of postal communication existed in New South Wales until 1809, when the first post office was established in Sydney. This establishment appears to have been merely a distributing office for letters and parcels arriving in Sydney; the conveyance of inland mails depended on constables and private individuals, no arrangements having been made for the despatch of ship letters. The postmaster was empowered to charge on delivery to the addressee 8d. for every English or foreign letter of whatever weight, and for every parcel weighing not more than 20 lb., 1s. 6d., and exceeding that weight, 3s. The charge on colonial letters was 4d., irrespective of weight; and soldiers' letters were charged 1d.

No measures towards additional postal communication were taken till 1825, when an Act was passed to regulate the postage, and a proclamation was issued fixing the postage rates and salaries and allowances of postmasters, and inviting tenders for the conveyance of mails. The provisions of the Act, however, were not fully observed until 1828. In that year there were in the Sydney

establishment one principal postmaster, one clerk, and one letter-carrier, in addition to eight country postmasters and a carrier at Parramatta. In 1837 a fortnightly mail was established between Sydney and Melbourne. Stamps were introduced in the same year in the form of stamped covers or envelopes, and their introduction constituted New South Wales as the first country in the world to adopt prepayment of postage by stamps.

In the year 1838 there were fifteen officers in the Sydney establishment. Within the borders of New South Wales, which at that time included Victoria and Queensland, there were forty post offices, the revenue of the Department for the year being £8,390, and the expenditure £10,357. The New South Wales Government also made payments to the post office in New Zealand, which was not created a separate colony until 1841. Mail communication by land between Sydney and Adelaide was established in 1847, and the rate of postage on a single letter was fixed at 1s. 6d. An amendment of the Postal Act was made in 1849, when the postage on town letters was fixed at 1d., and on inland letters at 2d., while the postage on ship letters was 3d., in addition to the inland rate, and authority was given for the use of postage stamps in their present form.

The first annual report of the Postal Department in New South Wales was laid before Parliament in the year 1855, and at that time there were 155 post offices. The head office was in George-street, Sydney, occupying the same site as the present edifice, but the building was small and inconvenient. There were no electric telegraphs, and the Observatory, by means of flags and semaphores, signalled the arrival of vessels at the Sydney Heads. Prior to the opening of the first railway, in September, 1855, the Southern and Western mails were despatched from the General Post Office in old-fashioned mail-coaches every evening. During that year the total distance travelled by the postal contractors, by coach and on horseback, was 1,023,255 miles. The number of letters passing through the post office was 2,114,179, of which 617,041 were addressed to places beyond New South Wales. The number of newspapers was 2,100,989, of which 1,281,613 were inland, and 819,376 were "foreign." Book parcels and packets were not reckoned separately, but were counted as letters. The revenue of the Department for the year was £24,902, and the expenditure was £60,221. The staff numbered 223 officers, of whom fifty-six were connected with the office in Sydney. The annual report also indicates that communication with Victoria was effected three times a week.

In the year 1856 the first iron pillar letter-receivers were erected in Sydney, and 22 miles of railway were utilised for postal purposes, 16½ miles being added in the following year.

In 1863 it was resolved to build a new General Post Office at Sydney, and the construction of the present building was commenced, but was not opened till 1874. The headquarters of the Electric Telegraph Department and the Telephone Exchange are in the same building.

In 1855 there were only 155 post offices within the area now comprised in New South Wales and Queensland; at the close of 1910 there were within this State alone 1,911 post offices, besides 526 receiving offices—a truly marvellous development. The number of letters passing through the Post Office in New South Wales during 1910 was 151,315,512, and the number of newspapers, 66,963,559. Packets and book parcels were first enumerated separately in 1858, during which year 68,564 passed through the post; in 1910 the number was 39,008,610. Post-cards were first introduced in 1875, when the number sent was 128,786; and in 1910 no less than 12,438,544 passed through the Post Office, of which 10,611,836 were posted within the State.

Letter-cards introduced for public use on the 1st July, 1894, may be transmitted within the Commonwealth, including Papua, and to all other places in the British Empire at the postage rate of 1d. each.

A parcels post for inland and interstate transmission was inaugurated on the 1st October, 1893, the maximum weight being fixed at 11 lb.. The number of parcels carried under this system up to the close of the year 1893 was 44,265, and 349,218 were carried during 1895. Under the foreign system, which has been in force since August, 1886, 19,437 parcels were carried in 1893, and in 1903, 53,221. In 1910 the total number of parcels carried was 1,600,426, of which 1,265,996 were inland, 260,275 interstate, and 74,155 from and to places outside the Commonwealth. In 1910 there were 25,009 parcels on which Customs duty was charged and collected. Special low rates have been fixed for the carriage by post of commercial papers, merchandise, pattern, and samples, and printed papers, newspapers, books, and magazines.

VALUE-PAYABLE PARCEL POST.

When the Postal Department was transferred to Federal control in 1901, a system of value-payable parcel post which had been in operation in Queensland was extended to the other States. Under this system the Department accepts for transmission within the Commonwealth parcels or letters sent in execution of orders, and collects from the addressees on behalf of the senders the charges due thereon. During 1910, the number of parcels posted in this State was 7,901 and the value collected was £14,336, the revenue, including postage, commission on value, registration, and money-order commission being £1,201.

The growth of value-payable parcels business since 1905, the first year for which figures are available for all the States of the Commonwealth, is shown below:—

State.	Parcels Posted.	
	1905.	1910.
New South Wales	1,839	7,901
Victoria	390	894
Queensland	18,095	34,917
South Australia	95	214
Western Australia	4,494	21,940
Tasmania	7	110
Total	24,920	65,976

NUMBER OF POST OFFICES, &c.

The following table shows for New South Wales the number of post offices, employees, income and expenditure in five-year periods from 1855 to 1910. For 1885 and succeeding years the number of persons employed and the income and expenditure refer to the Department as a whole; prior to that year the figures are for Post Office only. Since 1907 the number of persons employed includes temporary employees. Also, from 1885, the income is

exclusive of interest on Savings Bank balances in the Treasury; and the expenditure is exclusive of interest allowed to Savings Bank depositors:—

Year.	Post Offices.	Receiving Offices.	Persons employed in the Department.	Income.	Approximate Expenditure.
	No.	No.	No.	£	£
1855	155	8	223	24,902	60,221
1860	289	*	289	45,613	71,391
1865	435	*	513	70,985	83,659
1870	562	*	690	84,441	86,722
1875	752	7	967	107,761	196,368
1880	927	119	1,536	194,084	268,128
1885	1,115	202	3,205	485,489	573,617
1890	1,338	325	3,821	637,975	677,216
1895	1,470	502	5,063	648,852	763,259
1900	1,668	521	5,516	831,340	764,227
1905	1,744	522	5,890	1,022,330	970,808
1906	1,769	519	5,943	1,134,248	966,498
1907	1,809	510	6,964	1,237,389	1,067,232
1908	1,842	526	7,343	1,278,106	1,157,976
1909	1,884	513	7,469	1,319,755	1,214,878
1910	1,911	526	8,622	1,437,748	1,339,891

* Not recorded.

Exclusive of 1,602 mail contractors, 8,622 persons were employed by the Department in 1910.

REVENUE AND EXPENDITURE.

The following statement shows the revenue and expenditure of the Department in the State of New South Wales for the year ended 30 June, 1911:—

Revenue.		Expenditure.	
	£		£
Postage	949,604	Salaries	636,906
Private bags and boxes	8,518	Conveyance of mails—	
Commission on money orders and poundage on postal notes	44,314	Inland	137,335
Telegraphs	235,732	By railway	107,396
Telephones	192,374	By non-contract vessels	9,342
Miscellaneous	52,048	Overland and sea transit of mails	3,040
		Contingencies—	
		Repairs and maintenance of telegraph and telephone lines and instruments	48,064
		Allowance to non-official post-masters	62,738
		Other items	170,344
		Cables—	
		New Caledonia Guarantee	2,000
		Pacific Cable, proportion of loss	7,000
		Mail Service, <i>via</i> Suez	63,246
		Vancouver Mail Service	9,870
		Miscellaneous	1,100
		New Works*	228,482
Total	£1,482,590	Total	£1,486,863

*Includes Telegraphs, £32,467; Telephones, £151,747; Trunk Lines, £16,627; Metallic Circuits, £9,843; Switchboards, £15,760; Other Items, 2,038.

A return showing the total revenue and expenditure of the Postmaster-General's Department for each State of the Commonwealth during the year ended 30th June, 1911, is appended :—

State.	Revenue.	Expenditure.
	£	£
New South Wales	1,482,590	1,486,863
Victoria	977,943	1,114,184
Queensland	572,186	604,963
South Australia	408,628	345,620
Western Australia	315,691	410,296
Tasmania	153,022	155,755
Total Commonwealth ...	3,910,060	4,122,075*

* Includes £4,394 charged to all the States for wireless telegraphy.

In the expenditure shown in the table, interest on the outlay on post office buildings and telegraph lines, and maintenance of buildings, are not taken into account.

The Postmaster-General's Department has recently adopted a very liberal practice in the matter of establishing country mail services. It is prepared to establish a new mail service on condition that the persons interested provide only half the difference between cost and revenue; so that if a service costs £500, and produces a revenue of £300, the Department, besides allowing all the revenue as a set-off against the cost, provides also £100 of the difference, and the persons interested are only called upon to make good £100, the other half of that difference.

During the year ended 30th June, 1911, an amount of £6,756 11s. 7d. was paid as commission to licensed vendors of postage stamps in the State of New South Wales, the total so paid for all States of the Commonwealth being £20,884 15s. 11d.

POSTAL LINES.

The extent of postal lines within New South Wales, and cost of conveyance of mails, is shown below :—

Year.	Extent of Postal Lines.	Cost of conveyance of Mails, Foreign and Inland.	Year.	Extent of Postal Lines	Cost of conveyance of Mails, Foreign and Inland.
	miles.	£		miles.	£
1855	*	45,412	1895	33,693	210,354
1860	8,231	44,303	1900	36,294	213,924
1865	11,992	49,840	1905	36,480	261,424
1870	14,242	48,649	1906	40,178	258,306
1875	17,671	133,912	1907	40,111	252,682
1880	22,427	174,238	1908	40,168	273,217
1885	26,683	226,105	1909	39,294	250,409
1890	29,594	231,467	1910	44,043	304,795

* Not recorded.

LETTERS, &c., POSTED.

The following return, showing the letters, &c., posted and received, will give an idea of the magnitude of the work done by the Post Office in New South Wales :—

Year.	Letters.	Post-cards.	Newspapers.	Packets and Book Parcels.	Parcels.
	No.	No.	No.	No.	No.
1855	2,114,179	...	2,100,989	* ...	...
1860	4,230,761	...	3,668,783	83,736	...
1865	6,328,353	...	4,689,858	249,904	...
1870	7,083,500	...	3,814,700	157,700	...
1875	13,717,900	128,786	6,262,600	337,000	...
1880	21,732,500	153,360	13,791,000	711,600	...
1885	39,351,200	341,000	25,567,400	3,446,800	...
1890	63,017,700	677,400	40,597,200	8,939,600	21,300
1895	68,416,308	957,400	44,902,900	11,259,200	422,800
1900	78,129,284	1,473,410	51,500,920	13,846,700	711,700
1905	103,576,306	8,382,282	44,599,104	22,083,000	994,100
1906	115,062,748	12,621,096	47,144,094	24,038,946	1,162,185
1907	122,130,948	15,097,710	48,340,646	35,816,853	1,374,701
1908	134,684,520	14,969,312	50,461,252	36,918,822	1,411,489
1909	139,058,694	12,511,546	56,002,764	37,339,895	1,509,468
1910	151,315,512	12,438,544	66,965,559	59,008,610	1,600,426

* Included with letters.

The progress exhibited by the table just given is astonishing. In 1855 the total number of letters and newspapers, inland and foreign, was slightly over 2 millions each, whereas in 1910 the number of letters and post-cards had grown to 163½ millions, and newspapers to 67 millions, without reckoning over 40 millions of packets and book parcels which in the year 1855 were included with the letters. The enormous increase in the number of post-cards which reached a maximum of over 15 millions in 1907 was due mainly to the introduction of the pictorial post-card.

During 1910 the postal matter posted and received per head of population was : Letters and postcards, 101 ; newspapers, 41 ; and packets and parcels, 25. The charge on letters between the State and the United Kingdom, which had for a long period been at the rate of 6d. per ½ oz. *via* Italy, and 4d. by the long sea route, was reduced in 1891 to 2½d., and a further reduction was made in 1905 to 2d. for a letter sent to the United Kingdom. From 1st May, 1911, reduced rates were introduced by which the rate for letters throughout the Commonwealth and to any part of the British Empire is 1d. per ½ oz. A proposal by the Commonwealth Government to further extend the penny postage to the United States of America was not accepted by the United States Administration.

By an arrangement made at the Postal Congress held in Vienna in 1891, New South Wales entered the Universal Postal Union on the 1st October, 1891. The effect has been the extension of the reduced rate of 2½d. per ½ oz. to all foreign countries embraced in the Union.

In the year 1910, 5,484,057 letters and post-cards, 2,526,823 newspapers, and 1,581,980 packets and parcels were posted in New South Wales for countries outside Australia.

It is required that newspapers be registered at the General Post Office, and both newspapers and supplements must be printed and published within the Commonwealth to secure transmission at newspaper rates. This provision is continued under the Commonwealth Post and Telegraph Act, 1901.

Newspapers are transmitted to any place within the Commonwealth, Papua, New Zealand, and Fiji, at the rate of $\frac{1}{2}$ d. for every 10 oz. or fraction thereof; to the United Kingdom, for each newspaper not exceeding 8 oz., 1d.; exceeding 8 oz., but under 10 oz., $2\frac{1}{2}$ d.; every additional 2 oz., $\frac{1}{2}$ d.; and to all other places at the rate of 1d. for each newspaper not exceeding 4 oz. in weight, with $\frac{1}{2}$ d. for every additional 2 oz. or fraction thereof. Newspapers transmitted wholly by sea to the United Kingdom are charged at the rate of 1d. for every 16 oz.

REGISTERED LETTERS.

The following table shows the number of registered letters posted and received in the State during the last ten years:—

Year.	Number.	Year.	Number.
1901	1,213,277	1906	925,726
1902	1,095,095	1907	889,407
1903	928,521	1908	892,742
1904	901,235	1909	1,019,369
1905	964,294	1910	1,069,748

Of the registered letters in 1910 there were 346,987 from and to places beyond the State, and 722,761 inland.

DEAD LETTERS, &c.

The number of dead letters and other articles dealt with by the Post Office in New South Wales during 1910 was as follows:—

	Letters.	Post-cards.	Packets.
Returned to writers, delivered, &c., in State in which posted	324,672	7,983	844,790
Destroyed in accordance with Act	64,934	43,945	42,369
Returned to other States or Countries as unclaimed ...	51,429	4,632	3,602
Total... ..	441,035	56,560	890,761

The letters, &c., which passed through the Dead Letter Office are very large in number, but from official reports it appears that much carelessness is displayed by some people in connection with their correspondence, and numerous articles, including many containing large money values, are wrongly or insufficiently addressed, or not addressed in any way.

Of the post cards destroyed in accordance with the Act, it may be stated that beaded or tinselled cards are prohibited for obvious reasons from transmission by post unless in envelopes, yet in 1910 there were 20,000 of these cards posted, and, of course, destroyed. In the previous year 60,000 were so treated.

POSTAGE STAMPS.

While the book-keeping clauses of the Constitution Act of the Commonwealth remained in operation, postage stamps were only valid for use within the States in which they were issued; but on the 13th October, 1910, they were made available for use throughout the Commonwealth.

OCEAN MAILS.

Regular steam communication with England was established in 1852. The steamers were withdrawn two years later on the outbreak of the Crimean war, but in 1856 they were again started, and the service was performed by the Peninsular and Oriental and the Royal Mail Companies.

As this service proved unsatisfactory, a line was started in 1866 to carry mails from Sydney, *via* Panama, but it was terminated two years later. On the completion of the railway across America in 1869, a monthly service, *via* San Francisco, was inaugurated, under subsidy by the Governments of New South Wales and New Zealand. This line ceased running in 1907, and, after an interval of some months, another monthly service was started by a British shipping firm for the conveyance of mails from San Francisco to Wellington (New Zealand), and thence to Sydney. The Union Steamship Company, in December, 1911, inaugurated a monthly service between Sydney and San Francisco, by which route the passage to London will only occupy thirty days. The new service, in combination with the Vancouver service, will give direct fortnightly communication between New South Wales and North America.

The Oceanic Steamship Company propose to resume the San Francisco to Sydney mail service with the three steamers previously so engaged, which are now being made ready for running early in the year 1912. The Company propose that the service shall be a monthly one, and to guarantee a thirty days' service to London, *via* America.

During the year 1893 a direct mail service was established between Sydney and Vancouver, *via* Wellington, and thence to Liverpool, *via* the Canadian-Pacific Railway. The contract, with an annual subsidy, was renewed until the year 1899, when separate agreements were entered into by the Government of New South Wales and Queensland with a shipping company for a term of four years for a monthly mail service. On the expiration of these agreements in 1903, fresh agreements were made by the Commonwealth Government and the Union Steamship Company of New Zealand, (Limited) for the carriage of the mails between Australia and Canada. Agreements were renewed and further extended until the 1st August, 1911, when, failing an arrangement with the Canadian Government for a subsidised service between Australia and Canada as formerly, Australia ceased to be a party to the contract for the Vancouver service. There is, however, now a mail service carried out by the steamers of the Union Steamship Company between New Zealand and Canada, *via* Honolulu and Fiji, making Sydney a port of call.

After the establishment of a mail route *via* America, there was a great improvement in the service *via* Suez. The Peninsular and Oriental Company continues to carry mails from the Australian States; also the Orient Pacific Company, which commenced in 1878. Vessels of the Messageries Maritimes and the Norddeutscher Lloyd Companies are subsidised by the French and German Governments respectively for the monthly conveyance of mails between Marseilles and New Caledonia, and between Bremen and Sydney. The Commonwealth Government makes use of these steamers for the carriage of mails from Australia to Europe at Postal Union rates.

Contracts with the Peninsular and Oriental Steam Navigation Company and the Orient Steam Navigation Companies for a weekly service, subsidised by the Imperial and Australian Governments, terminated on 31st January, 1905.

Failing satisfactory arrangements by contract with the steamship companies, mails were carried to the United Kingdom, *via* Suez, during the period from 1st February, 1905, to 4th April, 1905, by vessels at Postal Union poundage rates.

An agreement was afterwards completed by the Government of the Commonwealth with the Orient Company for the carriage of mails fortnightly between Naples and Adelaide *via* Suez, for the period 4th April, 1905, to 31st January, 1908. This contract was extended to cover the period to 31st January, 1910, and subsequently a tender submitted by the Orient Company for a ten years' service, dating from 1st February, 1910, was accepted by the Commonwealth at an annual subsidy of £170,000. The new contract provides for a service of 638 hours between Brindisi and Adelaide and between Adelaide and Brindisi 650 hours. The Imperial Government having a contract with the Peninsular and Oriental Company for a fortnightly mail service to Australia, alternating with that of the Commonwealth with the Orient Company, this State has the advantage of a weekly mail service with Europe by British vessels.

The progress made in regard to the means of postal communication with the United Kingdom and the continent of Europe and America is marvellous. Instead of the unsatisfactory ocean mail service of 1857, which nominally brought monthly mails, with news 58 days old, there are now four great lines of ocean steamships, which bring mails, *via* the Suez Canal, at least once a week, the time occupied in the conveyance of the mails being on the average 33 days. In addition, there is a monthly service *via* Vancouver, by which mails are sent from Sydney to London in 36 days, and a line of steamers carry mails to San Francisco *via* New Zealand. There was also a steam service with London *via* Torres Straits, and advantage was taken at one time to send mail matter by these vessels. The following table shows, as far as possible, the average time and quickest time occupied in the transmission of letters by various routes between London and Sydney during 1910:—

Service.	London to Sydney.		Sydney to London.	
	Average Time.	Quickest Time.	Average Time.	Quickest Time.
	days.	days.	days.	days.
Per Peninsular and Oriental S. N. Co., <i>via</i> Suez ...	31	31	31 $\frac{4}{8}$	31
„ Orient Royal Mail Line, <i>via</i> Suez ...	31 $\frac{5}{8}$	31	31 $\frac{9}{8}$	31
„ Canadian-Australian, <i>via</i> Vancouver ...	37 $\frac{6}{8}$	37	35 $\frac{8}{8}$	34
„ Messageries Maritimes, <i>via</i> Suez ...	...	...	35 $\frac{1}{4}$	32
„ Nord-deutscher Lloyd, <i>via</i> Suez ...	...	...	34 $\frac{8}{11}$	33

The European mails are landed at Adelaide (South Australia), from which city the journey by train to Sydney occupies forty-two hours, including a stay of seven hours at Melbourne.

Mails are forwarded at poundage rates from Sydney by steamers to ports of the State which are not connected by railway, and there are regular subsidised steamer mail services between New South Wales and Papua, Lord Howe and Norfolk Islands, the New Hebrides Islands, the Solomons, Marshall, Gilbert and Ellice Islands.

TELEGRAPHS.

The electric telegraph was first used by the public of New South Wales on the 26th January, 1858, when the line from Sydney to Liverpool, 22 miles in length, was brought into operation. From this small beginning the system has increased until in 1910 there were 1,399 stations, and for telegraph and telephone business 17,615 miles of lines open, with 113,147 miles of

wire in actual use. The following table gives a view of the business of the Telegraph Branch of the Postmaster-General's Department from 1865 to 1910 :—

Year.	Telegraph Stations.	Telegrams transmitted, delivered, and in transit.	Actual Revenue received.	Telegraph and Telephone Lines.	Telegraph and Telephone Wires.	Cost of construction, including Telephone installation.
	No.	No.	£	miles.	miles.	£
1865	55	*138,785	29,769	...	2,989	145,446
1870	86	*173,812	28,550	...	5,247	195,545
1875	137	*719,745	48,657	...	8,012	253,391
1880	289	1,319,537	84,110	...	13,188	462,226
1885	404	2,625,992	155,073	...	19,864	641,609
1890	628	4,101,449	193,707	11,231	23,598	743,698
1895	834	2,635,456	145,901	12,316	28,799	840,380
1900	961	3,219,907	174,895	14,065	41,494	1,132,626
1905	1,069	3,837,962	156,956	14,827	71,086	1,434,017
1906	1,122	4,452,506	191,665	15,417	74,754	1,469,429
1907	1,278	4,894,283	207,525	15,910	82,249	+922,119
1908	1,290	5,149,763	222,801	16,338	93,755	+939,764
1909	1,329	5,177,962	215,446	17,087	97,612	+952,320
1910	1,399	5,607,178	245,245	17,615	113,147	+981,182

* Number despatched only.

† Exclusive of cost of telephone construction.

The number of telegrams received and despatched during the year, inland telegrams being counted once only, amounted to 5,220,962, or 3.23 per head of population. Although of late years the telephone has become almost a necessity in the conduct of business, and subscribers to telephone exchanges have greatly increased in number, as may be seen from a later table, there has been no decline in the number of telegraph messages, but in the above table a yearly increase is observable.

TELEGRAPH AND CABLE RATES.

The rates for the transmission of telegrams within New South Wales and to the other States of the Commonwealth were determined by the Post and Telegraph Rates Act, 1902, and came into force on the 1st November, 1902. For ordinary telegrams not exceeding sixteen words, including the address and signature, the charges are 6d. in town and suburban districts within prescribed limits, or within 15 miles of the sending station; 9d. to other places within the State; and 1s. for messages sent to any other State of the Commonwealth; in each case an extra charge of 1d. is made for each additional word. Double rates are imposed for the transmission of telegrams on Sunday, Christmas Day, and Good Friday, and between the hours of 8 p.m. and 9 a.m., and for urgent telegrams.

The rates per word for cables sent from New South Wales are :—To Norfolk Island, 3d.; New Zealand, 4½d.; New Caledonia, 9d.; Fiji, 8d.; United Kingdom, 3s.; and to Cape of Good Hope, Orange River, and Transvaal States, 2s. 3d.; to Vancouver, 2s. 4d. In August, 1909, the rate per word for press telegrams to the United Kingdom was reduced to 9d., and in February, 1910, the rate for similar telegrams to Vancouver was reduced to 3½d. per word.

CABLE SERVICES.

Cable communication with Europe was opened in 1872 by means of a submarine cable from Java to Port Darwin, whence messages were transmitted by the overland telegraph to Port Augusta, in South Australia. In 1879 the company controlling the cable duplicated the line, and was paid an annual subsidy by New South Wales, Victoria, South Australia, Western

Australia, and Tasmania. In 1891 the Government of New South Wales, in conjunction with other Australian Governments, undertook to pay the Company an annual amount equal to half the loss it might sustain by a reduction in the schedule of cable charges. In the following year the contracting Governments agreed to contribute towards the amount required to bring the South Australian revenue, on international telegrams, up to £37,552.

A cable, opened for communication on 20th February, 1878, connecting New Zealand with New South Wales was subsidised for ten years after its opening by the Eastern Extension Company. The landing place of this cable in New South Wales is at La Perouse, near Sydney. In 1890 the Company laid a second cable to New Zealand without guarantee.

In 1893 a cable from New Caledonia to Queensland was opened by a French company, to whom New South Wales and Queensland each agreed to pay an annual subsidy of £2,000 for thirty years.

In 1899 it was decided by the Governments of the United Kingdom, Canada, Australia, and New Zealand to construct a cable across the Pacific Ocean, touching only British territory on its way from Australia to America. This line, which was completed on 31st October, 1903, connects Southport, in Queensland, with Vancouver *via* Norfolk Island, Fiji, and Fanning Island. There is also a branch from Norfolk Island to New Zealand. The cable cost, roughly, £2,000,000, and its total length is 7,838 nautical miles. It is managed by the Pacific Cable Board, consisting of representatives from the various Governments.

The direct Cape cable, from Durban to Frémantle, which provides an alternative all-British route to that of the Pacific, was completed in 1901.

The contributions which New South Wales was called upon to pay to cable companies during the year ended 30th June, 1910, were: Queensland-New Caledonian Guarantee, £2,000; Pacific Cable, £6,769; total, £8,769. The other guarantees and subsidies have now lapsed.

With a view to reducing the cable charges between Australia and the United Kingdom, a proposal was made at the recent Imperial Conference in London to nationalise the Atlantic Cable, but failed to receive approval.

The following table shows the amount of outward business transacted by New South Wales, with Europe and the East, during the last ten years:—

Year.	Cable Messages sent from New South Wales.	Amount received.	Year.	Cable Messages sent from New South Wales.	Amount received
	No.	£		No.	£
1901	43,005	90,716	1906	96,478	101,302
1902	79,805	84,368	1907	106,830	106,502
1903	78,795	78,197	1908	108,634	104,705
1904	76,713	78,406	1909	108,031	104,298
1905	82,519	89,254	1910	119,657	118,663

The number of messages sent in 1910 was nearly three times the number in 1901, and the revenue shows an increase of 31 per cent.

WIRELESS TELEGRAPHY.

Wireless telegraphy has been installed at Sydney and Fremantle, and various other stations on the Australian coast, and in Papua. An engineer for radio-telegraphy has lately been appointed to organise the service of wireless telegraphy in the Commonwealth. A scheme for connecting Australia and the Pacific Islands by wireless telegraphy was formulated by

representatives of Australia and New Zealand, The High Commissioner for the Western Pacific, Fiji, the Admiralty, and the Pacific Cable Board, who met in conference in Melbourne in 1909. The scheme, which has been approved by the Commonwealth Government, involves the erection of stations at Sydney, at Doubtless Bay (New Zealand), and at Suva (Fiji), Ocean Island, also at Tulagi (Solomon Islands), and Vila (New Hebrides). The Commonwealth station at Pennant Hills, near Sydney, with a range of about 1,400 miles, is now complete. A private station in Sydney, erected by the Australasian Wireless Company (Limited), at the Hotel Australia, Sydney, and, previous to the opening of the Government Wireless Station at Pennant Hills, empowered to send and receive wireless messages to and from its station and ships at sea or ships in any port not connected by telegraph, charges 6d. a word, with a minimum of 5s. per message for the coast station; also an amount not exceeding 4d. per word, with a minimum of 3s. 4d., for the ship station, plus the usual Departmental land line charges.

There are at present 26 private wireless stations in Australia, and of these 22 are situate in this State. The owners of private stations hold licenses from the Government authorising them to use wireless telegraphy for experimental purposes.

It may be mentioned that wireless telegraphy is to be employed to maintain communication between Dr. Mawson's Antarctic Expedition and the Commonwealth. A station is to be erected on Macquarie Island, south of Tasmania, where messages will be received from Antarctica and transmitted to Australia. The New Zealand Government has accepted tenders for the erection of the Doubtless Bay station, and the station at Suva has been working since May, 1911. A large number of the interstate and oversea vessels trading with Australia have been fitted with wireless installation.

TELEPHONES.

Telephone exchanges have been established in Sydney and other important centres of population. A long-distance service between Sydney and Newcastle was inaugurated in 1898, and since that year several towns have been connected with the metropolis. A telephone line from Sydney to Melbourne was opened in 1907.

The following table shows the growth of the service during the last ten years :—

Year.	Exchanges.	Connections.			Cost of Construction (including expenditure on tunnels).	Rental received.
		Sydney and Suburbs.	Country.	Total.		
	No.	No.	No.	No.	£	£
1901	48	8,398	1,466	9,864	44,051	81,852
1902	51	9,401	1,678	11,079	21,684	96,200
1903	57	10,193	1,898	12,091	19,687	105,002
1904	61	11,046	2,092	13,138	14,001	116,328
1905	64	11,909	2,315	14,224	18,988	127,514
1906	76	12,670	2,783	15,453	26,055	144,933
1907	96	14,634	4,355	18,989	86,139	154,151
1908	113	15,392	6,022	21,414	85,422	161,016
1909	132	18,239	7,443	25,682	79,715	175,960
1910	268	20,203	9,914	30,117	87,427	168,173

There are also telephone stations in the country used in conjunction with the telegraph service.

Prior to the 31st January, 1907, the telephone subscribers were charged, under the flat-rate system, a fixed annual rental, irrespective of the number of calls made by them, but on that date a toll system was introduced throughout the Commonwealth, under which extra payment was required for all calls in excess of 1,000 in each half-year.

The financial results under this system were not satisfactory, and in 1909 it was decided that the rates should be revised. The new scale of charges, as shown below, apply to all subscribers, and were brought into effect on the 1st September, 1910 :—

In telephone networks having a population of—	Radius of network with main Exchange as centre.	Minimum annual charge—		
		For an exclusive service.	For each subscriber or instrument on a two-party service.	For each subscriber or instrument on a three or more party service.
	Miles.	£ s. d.	£ s. d.	£ s. d.
From 1 to 10,000 ...	5	3 0 0	2 10 0	2 0 0
„ 10,001 to 100,000 ...	10	3 10 0	2 15 0	2 5 0
„ 100,001 upwards	10	4 0 0	3 0 0	2 10 0

In addition, all effective calls originated by each subscriber are charged as follows :—

Not exceeding 2,000 half-yearly, 2 calls for 1d.

All calls over 2,000 half-yearly, 3 calls for 1d.

The necessary equipment is provided and maintained by the Department.

A comparison of the charges for the telephone service in European countries with those paid in New South Wales as in the other States of Australia show that in New South Wales the telephone rates are in no way excessive. In Great Britain £5 is charged for a measured local service, with a charge of 1d. per call, and the minimum payment for calls is 30s. per annum, so that in Great Britain a subscriber must pay at least £6 10s. per annum, whereas in the Commonwealth of Australia the charge is £4 for a similar service, and a $\frac{1}{2}$ d. for each call, without any minimum charge for calls, of which the subscriber can have as few or as many as he desires at the rate of $\frac{1}{2}$ d. per call. Calls from public telephones cost 2d. in Great Britain, and in Australia only 1d.

Telephone bureaux for the use of the public are placed in prominent positions in or near public buildings, post offices, railway stations, &c. For a conversation not exceeding three minutes' duration a charge of 1d. is made. In the year 1909 there were 347 of these bureaux, and in 1910 the number had been increased to 446.

EARLY CLOSING OF POST OFFICES.

From 1st March, 1911, the closing hour of 6 p.m. was adopted at all Post and Telegraph Offices, with the exception of the Chief and other important Telegraph Offices, which it is found necessary to keep open to a later hour.

RAILWAYS AND TRAMWAYS.

CONTROL OF STATE RAILWAYS.

THE control of the railways was vested in the Minister for Works, the direct management being undertaken by an officer under the title of Commissioner, until October, 1888, when the "Government Railways Act of 1888" was passed, afterwards consolidated as the "Government Railways Act, 1901," with the object of removing the management of the railways from political control, and vesting it in three railway Commissioners, who pay net earnings into the Public Revenue, and report annually to Parliament. Under the Railway Commissioners Appointment Act of 1906, the management of the railways and tramways was placed under the control of a Chief Commissioner; and two assistant Commissioners were appointed, one to assist in the management of the railways, and the other in that of the tramways.

While the avowed object of State railway construction has been to promote settlement, apart from consideration of the profitable working of the lines, the principle has nevertheless been kept in view that in the main the railways should be self-supporting.

RAILWAY CONSTRUCTION.

On the 26th September, 1855, the first railway-line, now known as the Main Suburban line, from Sydney to Parramatta, 14 miles in length, was opened for traffic, and communication was established between Newcastle and East Maitland in the northern system of railways on the 11th April, 1857.

During the twenty years which followed the opening of the first line, railway construction progressed at a very slow rate, for in 1875 the lines in operation had reached a length of only 435 miles, an average of $21\frac{3}{4}$ miles per year; and during four years of the period, viz., 1859, 1865, 1866, and 1874, no fresh extensions were opened. From 1876 to 1889 greater activity was manifested, 1,748 miles being constructed during the period, a yearly average of 125 miles. This rate of increase was not sustained, only 14 miles being opened in the next three years. During the year ended June, 1893, 154 miles were opened; 150 miles in the succeeding year; and 30 miles in the year ended June, 1895. In the following year no new lines were opened; but during the year ended June, 1897, 108 miles were added, and in the course of the next twelve months, 52 miles. During the twelve years ended June, 1910, a further length of 937 miles was brought into use. In the year 1911 the new lines opened amounted to 118 miles, the total length of line on 30th June, 1911, being 3,761 miles.

The progress in construction of the State railways of New South Wales may be traced in the table given below, the figures covering the period ending on 30th June in each year. Included in the mileage are the Campbelltown-Camden, and Yass tramways, which are worked with the railways:—

Period.	Opened during the period.	Total opened at end of period.	Year.	Opened during the period.	Total opened at end of period.
	miles.	miles.		miles.	miles.
1855-9	55	55	1890-4	330	2,501
1860-4	88	143	1895-9	205	2,706
1865-9	175	318	1900-4	575	3,281
1870-4	85	403	1905-9	342	3,623
1875-9	331	734	1910	20	3,643
1880-4	884	1,618	1911	118	3,761
1885-9	553	2,171			

Of the 3,761 miles in operation on the 30th June, 1911, there were 3,476 miles of single line, 276 miles of double line, and 9 miles of line with four tracks; in addition, there were 646 miles of sidings and crossovers.

RAILWAY SYSTEMS.

The railways of the State are divided into three branches, each constituting a separate system.

The southern system has several offshoots serving the most thickly-populated districts, and places Sydney, Melbourne, and Adelaide in direct communication. From Culcairn there are two branch lines, one connecting with Corowa on the Murray River, and the other with Germanton; from The Rock a line to Mucra is being extended through Urana to Oaklands; from Junee a branch extends to the town of Hay in one direction, and to Finley in another, and places the important district of Riverina in direct communication with Sydney. From Cootamundra a southerly branch carries the line to Tumut, and another in a north-westerly direction through Temora to Wyalong. During the year 1909 the extension from Temora to Ariah Park was carried 41 miles further, to Barellan. From Murrumburrah a branch has been constructed to Blayney, on the western line, thus connecting the southern and western systems of the State, and from Koorawatha, on this connecting line, a branch has been laid down to join Grenfell with the railway system, and there is a branch line from Cowra to Canowindra. Nearer the metropolis, the important town of Cooma is connected with Goulburn, bringing the rich pastoral district of Monaro into direct communication with the metropolis. An extension from Cooma to Bombala has been authorised. From Goulburn a branch line has been also opened to Crookwell. A small offshoot from the main southern line joins Campbelltown with Camden, and on the main suburban section of the southern system there is the branch line from Clyde to Carlingford. Another line forming part of the southern system has been constructed to Nowra, connecting the metropolis with the coastal district of Illawarra, which is rich in coal and in the produce of agriculture. From the Illawarra line a branch extends between Sydenham and Bankstown with Liverpool as the ultimate objective.

The western system of railways extends from Sydney over the Blue Mountains, and has its terminus at Bourke, a distance of 508 miles. Leaving the mountains, the western line, after throwing out a branch from Wallerawang to Mudgee and Gulgong, which has been extended to Dunedoo, enters the Bathurst Plains, and connects with the metropolis the rich agricultural lands of the Bathurst, Orange, and Wellington districts. Beyond Dubbo it enters the pastoral country. At Blayney, as before stated, the western line is joined with the southern system by a branch line to Murrumburrah; at Orange a branch connects that town with Forbes on the Lachlan River; and from Parkes, one of the stations on this branch line, an extension to Condobolin on the Lachlan River has been constructed. At Bogan Gate a branch line to Tullamore has been opened. Further west branch lines extend from Dubbo to Coonamble, from Narromine to Peak Hill, from Nevertire to Warren, and from Nyngan to the important mining district of Cobar. From Byrock a line branches off to Brewarrina. The western system also includes a short line from Blacktown to Windsor and Richmond.

The northern system originally commenced at Newcastle, but a connecting line crosses the Hawkesbury River by means of the far-famed Hawkesbury Bridge, thus making Sydney the centre of the whole of the railway systems of the State, and affording direct communication between the four State capital cities of Adelaide, Melbourne, Sydney, and Brisbane, a distance of 1,791 miles. The northern system has a branch from Werri Creek, *via* Narrabri and Moree, to Inverell, placing the Namoi and Gwydir districts in

direct communication with the ports of Newcastle and Sydney. A branch from Morce to Garah is under construction and will be extended to Mungindi, on the border of Queensland. There is also a branch line from Narrabri to Walgett, with a further branch at Burren Junction to Collarenebri East, and the Tamworth-Manilla branch has been extended to Barraba. There is a short line connecting Newcastle with the tourist district of Lake Macquarie, and another line runs from East Maitland to Morpeth. A portion of the North Coast railway has been constructed from Murwillumbah, on the Tweed River, to Grafton, on the Clarence River, having a length of 149 miles, and a branch from Casino to Kyogle was opened in 1910. The construction of the remaining portion has been authorised, and the work is being done in sections from Maitland, where it will join the main line from Sydney, and from Grafton at the northern end. The section from West Maitland to Dungog has been opened. A short line, 13 miles in length, branches off the main northern line at Hornsby, and connects with the north shore of Port Jackson at Milson's Point, from whence by commodious ferry steamers in a trip of about five minutes duration, passengers may reach Circular Quay, within the City of Sydney.

DECENTRALISATION IN RAILWAY TRANSIT.

As previously stated, Sydney is the centre of all the railway systems of New South Wales; lines to all parts of the State radiate from this point. In consequence of the enormous increase in traffic during recent years the railway facilities have been overtaxed, and the Government has determined that decentralisation in railway transit is necessary to meet the growing requirements of the State. A Royal Commission was appointed in June, 1910, to inquire and report as to the terminal points inland and on the sea coast which should be connected by rail, and generally to advise as to the best means of giving effect to the Government's policy.

The Commissioners dealt with a large number of proposals regarding railway communication with the coast, the establishment of seaports, and the construction of cross-country lines to link up the southern, western, north-western, and northern railway systems. Their report was furnished to Parliament in May, 1911.

The Commissioners emphasise the necessity of speedy measures to relieve existing congestion. With the progress of closer settlement the agricultural areas of the State must be furnished with improved railway communication, and the consequent increase in traffic will intensify the congestion on the main trunk lines, and at the port of Sydney, unless some comprehensive scheme of decentralisation is established.

Railway transit could be facilitated by the duplication of the existing main lines, but this would lead to greater congestion at the port of Sydney, which practically carries the whole trade of the State, that is of 310,367 square miles of territory, with 700 miles of coast-line.

As regards exports, wool, wheat, and live-stock represent the greatest volume of traffic to be considered. The wool traffic centres in Sydney, where the sales are held, and as long as this system continues direct shipment from any other port cannot, in the opinion of the Commissioners, be looked for to any extent.

The live-stock business is largely controlled by the centre of population, which is Sydney. The stock traffic can be decentralised only in so far as it can be influenced by the frozen meat trade. At present this trade is centralised in Sydney, but there is no doubt that the opening of new ports with provision for freezing and shipment would not only decentralise but would stimulate this industry.

It is considered that decentralisation as regards wheat for export should be accomplished easily if reasonable facilities be given; and in due course other products would be influenced in a similar manner. The import trade may not lend itself so readily to transference from an existing port of distribution, but it would eventually follow in proportion to the requirements of the area served by any port for export purposes.

The Decentralisation Commissioners were instructed also to give consideration to the question of linking the railway systems of New South Wales with those of Victoria for the purpose of providing direct access from the Riverina district to Melbourne, which is claimed to be the natural port of the district. The evidence obtained locally by the Commissioners showed that the wheat produced in the Riverina is generally sent to Sydney on account of the special grain rates allowed on the New South Wales railways. As, for example, the construction of the line from Finley to Tocumwal as recommended would give a distance of about 168 miles to Melbourne, as compared with 455 to Sydney; but the freight per ton of wheat to Sydney is 11s. 10d., against 13s. 6d. to Melbourne. Practically all the wool and fat stock go to Melbourne, whence all stores and general merchandise required in the district are obtained.

It has been argued that these connections would result in serious loss in working the extensions and a probable reduction in the revenue earned by the existing main lines, but the Decentralisation Commissioners point out that in ordinary circumstances the grain rates, being in favour of Sydney, would attract the wheat traffic, and although, as the general goods rates show no such difference in favour of Sydney the shorter distances between the commercial centres of Victoria and the Riverina would conserve the general goods traffic to that State, and the New South Wales railways would derive revenue from freight of this class at present carried by teams after leaving the Victorian railways at the border.

As a result of their inquiries the Commissioners submitted the following recommendations:—

- 1. That a port for oversea shipment be established at Salamander Bay, Port Stephens.
2. That in order to make the proposed port fully effective as a decentralising factor the following railway lines, which are arranged in the order of their importance, be constructed:—
 - (a) Mary Vale, *via* Gulgong, Wollar, and Denman to Muswellbrook.
 - (b) Morpeth to Salamander Bay, Port Stephens.
 - (c) Walcha Road, *via* Walcha, Nowendoc, Woodside, and the North Coast railway to Salamander Bay, Port Stephens.
 - (d) Inverell to Guyra.
 - (e) Warialda to Boggabilla.
3. That an arrangement be made with the Federal Government for the establishment of a port for oversea shipment at Jervis Bay, with railway connection from Yass, *via* Canberra and Queanbeyan.
4. That the following railways be constructed for the purpose of linking up the New South Wales and Victorian railway systems at the border:—
 - (a) Finley to Tocumwal.
 - (b) Clear Hills to Mulwala.
5. That railways be constructed for cross-country purposes, as follow:—
 - (a) Stockinbingal to Forbes.
 - (b) Parkes to Mary Vale.
 - (c) Gilgandra to Curlewis.
 - (d) Condobolin, *via* Mount Hope, to Broken Hill.

COMPARISON OF RAILWAY FACILITIES.

The progress of the State railways can be fairly gauged by comparing the population and area of territory to each mile of line open for traffic at different periods. Thus, in 1860 there were 4,979 persons to each mile of line, but by the end of the year 1880 the work of construction had proceeded at a rate so much faster than the increase in population that the average number of persons per mile had fallen to 881, the facilities afforded by the railways being more than five times as great as in the earlier year. In 1911 the average population per mile of line was 441. The decrease in the area of territory to each mile of line open has been very rapid, ranging from 4,434 square miles in 1860 to 83 square miles in 1911. The following statement shows the extension of railway facilities since 1860:—

Year.	Population to each Mile of Line open.	Area to each Mile of Line open.	Year.	Population to each Mile of Line open.	Area to each Mile of Line open.
	No.	sq. miles.		No.	sq. miles.
1860	4,979	4,433.9	1902	460	102.6
1865	2,861	2,170.4	1903	451	98.9
1870	1,471	915.6	1904	438	94.6
1875	1,360	710.2	1905	447	94.6
1880	881	365.6	1906	443	91.6
1885	548	179.2	1907	444	89.9
1890	523	142.2	1908	451	89.4
1895	501	122.6	1909	440	85.7
1900	482	110.4	1910	446	85.2
1901	482	109.1	1911	441	82.5

GRADIENTS.

The railways of the State have been constructed with a large proportion of steep gradients, but much has been done during the last few years to remove this drawback. By reducing some of the gradients, and introducing locomotives of greater power than were employed formerly, considerable economy in working, and expedition in traffic, have been effected. Much remains to be accomplished in this respect, as will be seen on reference to the following table, which shows the number of miles on different gradients in June, 1911:—

Gradients.	Southern System.	Western System.	Northern System.	Total.
1 in	miles.	miles.	miles.	miles.
18 to 30	3½	1¾	...	5½
31 „ 40	58	65½	33	156½
41 „ 50	64¾	50½	76½	191¾
51 „ 60	47	59	56¾	162¾
61 „ 70	53½	55	35¾	144½
71 „ 80	88½	79½	86½	254½
81 „ 90	37½	38½	35	111
91 „ 100	75¾	103¾	67¾	246¾
101 „ 150	119	132	109½	360½
151 „ 200	77¾	71½	65¾	215
201 „ 250	45	30½	28¾	104
251 „ 300	58½	56½	48½	163
301 „ level	544	556¾	503½	1,604½
Total ..	1,272	1,300½	1,147	3,719½

The above table is exclusive of the lines from Broken Hill to Tarrawingee, and a short line from Wollongong, the total length of these lines being 41½ miles.

Of the deviations made to improve the gradients one of the most important has been effected on the western line to avoid the Zig Zag. This work was completed in October, 1910.

COST OF CONSTRUCTION.

The average cost of the whole of the lines, including expenditure for rolling-stock, machinery, furniture, and workshops and stores has been £13,554, or excluding these items, £10,813—an amount which is by no means high, considering the character of some parts of the country through which the lines have been carried, and the cost of labour, which is greater in Australia than in most other countries. In considering in detail the figures given, it is interesting to note the comparatively low cost per mile of some of the extensions through pastoral country. These are known as the "pioneer" class, and are of a light and cheap kind, on which the produce of the settlers may be conveyed to the trunk lines at a reasonable speed, and at a cheaper rate than carriage by road. The average for the line from Parkes to Condobolin was £2,085 per mile; Jerilderie to Berrigan, £2,170 per mile; Burren Junction to Collarenebri East, £2,402 per mile; from Dubbo to Coonamble, £2,516 per mile; from Narrabri to Moree, £2,587 per mile; from Berrigan to Finley, £2,637 per mile; and from Byrock to Brewarrina, £2,693 per mile. The lines of the "pioneer" class, in a special manner, show that in certain districts of the State, railways capable of carrying the traffic can be constructed at an average cost far below that of the initial lines, since thirty-five lines, with a total length of 1,407 miles, have been constructed at an average cost of £3,640 per mile. The cost of construction of the various branches of the railway systems to the 30th June, 1911, is set forth in the following table:—

Lines opened for Traffic.	Length.	Total Cost.	Cost per Mile.
	m. ch.	£	£
Darling Harbour Branch, Sydney	1 49½	907,610	560,686
Flemington to Belmore and Wardell-road to Glebe Island.	.....	108,44½	...
MAIN SOUTHERN LINE.			
Sydney to Granville	15 38½	2,822,204	182,299
Granville to Goulburn	122 72½	2,574,410	20,946
Goulburn to Wagga	178 10½	1,657,009	9,302
Wagga to Wodonga	79 15½	922,082	11,643
Branch Lines.			
Campbelltown to Camden	7 66½	46,156	5,894
Yass Tramway	2 78	29,230	9,825
Goulburn to Crookwell	35 78½	159,128	4,423
Goulburn to Cooma	130 51½	1,383,400	10,589
Murrumburrah to Blayney, on Western Line ...	110 50	1,093,752	9,887
Koorawatha to Grenfell	32 24	111,297	3,446
Cootamundra to Gundagai	33 68	324,555	9,588
Gundagai to Tumut	31 34½	208,174	6,623
Cootamundra to Temora	38 72	188,178	4,837
Temora to Wyalong	41 26	122,028	2,953
Temora to Barellan	61 41½	192,137	3,123
Junee to Hay	168 43½	991,970	5,885
Narrandera to Jerilderie	65 0½	409,193	6,295
Jerilderie to Berrigan	21 66½	47,358	2,170
Berrigan to Finley	14 4	37,044	2,637
The Rock to Lockhart	24 59	77,956	3,151
Culcairn to Germonanton	16 61	59,618	3,557
Culcairn to Corowa	48 3	225,183	4,688
Lockhart to Mucra	21 74½	97,907	4,464

Lines opened for Traffic.	Length.		Total Cost.	Cost per Mile.
	m.	ch.	£	£
MAIN WESTERN LINE.				
Granville to Penrith	20	72 $\frac{1}{2}$	609,517	29,159
Penrith to Bathurst	111	10 $\frac{1}{2}$	3,263,363	29,365
Bathurst to Dubbo	137	67 $\frac{3}{4}$	1,361,572	9,877
Dubbo to Bourke	225	51 $\frac{1}{4}$	1,362,694	6,039
<i>Branch Lines.</i>				
Clyde to Carlingford	4	39 $\frac{1}{2}$	33,276	7,410
Blacktown to Richmond	16	19 $\frac{1}{2}$	177,691	10,939
Wallerawang to Mudgee	85	17 $\frac{1}{2}$	988,148	11,595
Blayney to Murrumburrah (see Southern Line)				
Orange to Molong... ..	23	54 $\frac{1}{2}$	270,673	11,430
Molong to Forbes... ..	72	76 $\frac{3}{4}$	353,055	5,250
Parkes to Condobolin	62	60 $\frac{1}{2}$	130,839	2,085
Bogan Gate to Tullamore	37	66 $\frac{1}{4}$	125,791	3,325
Dubbo to Coonamble	95	79 $\frac{1}{2}$	241,524	2,516
Nevetire to Warren	12	29 $\frac{1}{2}$	40,994	3,314
Nyngan to Cobar—The Peak	85	26 $\frac{3}{4}$	320,350	3,754
Byrock to Brewarrina	58	42	157,591	2,693
Mudgee to Gulgong	20	18	85,322	4,219
Cowra to Canowindra	23	51	125,872	5,325
Gulgong to Dunedoo	29	44 $\frac{1}{2}$	111,571	3,775
Narromine to Peak Hill	36	62 $\frac{1}{2}$	119,260	3,243
MAIN NORTHERN LINE.				
Homebush (Sydney) to Waratah	97	57 $\frac{3}{4}$	3,293,510	33,703
Newcastle to Wallangarra	391	15 $\frac{1}{2}$	5,196,004	13,181
<i>Branch Lines.</i>				
Hornsby to Milson's Point (Sydney)	13	36 $\frac{3}{4}$	745,188	55,366
Bullock Island	4	70 $\frac{1}{2}$	618,729	126,838
Morpeth	3	37 $\frac{1}{2}$	61,482	17,741
Werris Creek to Narrabri	96	58	606,068	6,206
Narrabri to Moree	63	13	163,389	2,587
Moree to Inverell	95	65 $\frac{1}{2}$	327,514	3,418
Narrabri West to Walgett	106	9	322,145	3,066
Burren Junction to Collarenebri East	42	44 $\frac{1}{2}$	102,216	2,402
Tamworth to Manilla	29	48 $\frac{1}{2}$	91,451	3,089
Manilla to Barraba	32	2	154,715	4,831
Fassifern to Toronto	2	55	16,628	6,187
NORTH COAST LINE.				
Lismore to Murwillumbah	63	59	919,419	14,425
Lismore to Casino	18	14 $\frac{3}{4}$	131,133	7,211
Grafton to Casino... ..	67	15 $\frac{1}{2}$	295,586	4,400
Casino to Kyogle	17	71 $\frac{1}{4}$	88,343	4,938
SOUTH COAST (ILLAWARRA) LINE.				
Sydney to Kiama	73	31 $\frac{1}{2}$	2,172,808	29,605
Kiama to Nowra	22	59 $\frac{1}{2}$	363,113	15,965
<i>Branch Line.</i>				
Sydenham to Bankstown	8	33 $\frac{1}{2}$	257,232	30,555
BROKEN HILL LINE.				
Broken Hill to Tarrawingee	40	7	32,575	813
Total, All Lines	3,760	62 $\frac{1}{2}$	40,664,375	10,813

The amount expended on rolling-stock to the 30th June, 1911, was £10,307,519, viz.:—Rolling-stock, £8,399,286; machinery, £462,471; workshops, £685,726; furniture, £10,036; stores advanced, £750,000. This makes the total cost of all lines open for traffic, £50,971,894, or an average of

£13,554 per mile. The growth of the capital expenditure on lines open may be seen in the following table:—

Year.	Capital expended during period.	Total capital expended on lines open.	Year.	Capital expended during period.	Total capital expended on lines open.
	£	£		£	£
1855-9	1,278,416	1,278,416	1890-4	6,016,104	35,855,271
1860-4	1,353,374	2,631,790	1895-9	2,137,005	37,992,276
1865-9	2,049,539	4,681,329	1900-4	4,296,241	42,288,517
1870-4	2,163,217	6,844,546	1905-9	5,324,149	47,612,666
1875-9	3,561,949	10,406,495	1910	1,312,682	48,925,348
1880-4	9,673,843	20,080,128	1911	2,046,546	50,971,894
1885-9	9,759,029	29,839,167			

Of the £50,971,894 expended on lines open for traffic on the 30th June, 1911, an amount of £612,154 has been provided from the Consolidated Revenue of the State, leaving a balance of £50,359,740, which has been raised by the issue of debentures and other stock. The net revenue for the year ended 30th June, 1911, after paying working expenses, was £2,351,144, which gave a return of 4·61 per cent. upon the total capital expenditure on the lines open for traffic, and 4·67 per cent. upon the gross loan capital involved.

REVENUE RETURNS AND WORKING EXPENSES.

A statement of the working expenses and earnings of the railways during the year ended 30th June, 1911, is shown below:—

Working Expenses.		Earnings.	
	£		£
Maintenance of Way, Works, and Buildings	810,196	Passengers	2,074,860
Locomotive Power	1,437,594	Mails, Parcels, Horses, &c. ...	310,865
Carriage and Waggon Repairs and Renewals	332,893	Total Coaching... ..	2,385,725
Traffic Expenses	968,064	Goods—	
Compensation	34,642	Merchandise	2,013,730
General Charges	100,774	Live Stock	630,507
Gratuities	4,898	Wool	372,850
Fire Insurance Fund	2,000	Minerals	568,337
	3,691,061	Total Goods	3,585,424
Balance, Net Earnings	2,351,144	Rents	52,877
		Miscellaneous	18,179
Total	6,042,205	Total	6,042,205

The expenditure on locomotive power amounted to 38·9 per cent. of the total; traffic expenses to 26·2 per cent.; and maintenance of ways, works, and buildings to 22·0 per cent. Of the earnings 34·3 per cent. was derived from the carriage of passengers, 5·1 per cent. from mails, parcels, &c., and 59·3 per cent. from the conveyance of goods of all kinds.

The contrast between the present condition of the railways of New South Wales and that which prevailed at their beginning in 1855 is remarkable. For the first ten years of the period under review the larger part of the railway earnings was obtained from the passenger traffic, no doubt owing to the fact that the first railways were entirely suburban. It was not until

the line crossed the mountains and opened up the interior that the proportions changed, and the goods traffic became the principal source of revenue. This change began to take place in 1867.

A comparison between the earnings of the period prior to 1871—when the net result every year represented only a small proportion of the interest due on the capital expended in the construction of the lines—and of the subsequent period, affords matter for satisfaction. The following table shows the gross earnings, working expenses, and the proportion of the expenditure to receipts, in various periods from 1855 up to the 30th June, 1911. Since the year 1887 the railway accounts have been made up to the 30th June in each year:—

Year.	Gross Earnings.	Working Expenses.	Proportion of working expenses to gross earnings.	Year.	Gross Earnings.	Working Expenses.	Proportion of working expenses to gross earnings.
	£	£	per cent.		£	£	per cent.
1855	9,249	5,959	64·4	1890	2,633,086	1,665,835	63·3
1860	62,269	50,427	81·0	1895	2,878,204	1,567,589	54·5
1865	166,032	108,926	65·6	1900	3,163,572	1,769,520	55·9
1870	307,142	206,003	67·1	1905	3,684,016	2,192,147	59·5
1875	614,648	296,174	48·2	1910	5,485,715	3,276,409	59·7
1880	1,161,017	647,719	55·8	1911	6,042,205	3,691,061	61·1
1885	2,174,368	1,458,153	67·1				

For the year 1911 the net result, after providing for all working expenses and £1,797,146 interest on the capital invested, is a surplus of £553,998, as compared with a surplus of £522,288 for the year 1910.

With the exception of the years 1902 and 1903, which were drought years, and 1904, when the quantity of wool and live stock carried was low on account of the preceding year's drought, the proportion of working expenses to gross earnings was considerably less than for the period anterior to the vesting of the railways in the Commissioners. The fact that the lines as a whole have not in the past always returned a profit should occasion no surprise, as the statistics of railways in all parts of the world show that few lines, except perhaps suburban, return a profit during the first few years after their opening.

During the period from 1870 to 1875, when the length of new lines yearly constructed was very small, the railway profits steadily increased. During 1877 and 1878, 180 miles of railway were constructed, and the profits immediately declined. From 1880 to 1884 the railways were extended, chiefly to centres already populous and prosperous, viz., Riverina and New England, and the central districts of Wellington and Dubbo; and as these were years of remarkable prosperity, the railway profits suffered less than usual from the considerable extension, which included the construction of the expensive connecting link joining the New South Wales railways with those of Victoria, at the River Murray. Since 1885 the extensions on the main lines have been mainly through pastoral country, e.g., the continuation of the Western line to Bourke, the Northern line to Wallangarra, and the further extensions of the lines on the Goulburn district to the rich pastoral lands of Monaro. Also branch lines have been constructed tapping important agricultural, dairy-farming, and pastoral districts.

Expensive new lines result in an increase in the percentage of working expenses to the gross earnings, as these lines have to be kept in full repair whilst actually returning in gross earnings little more than the cost of maintenance. The small returns on expensive incomplected branches further tend to diminish greatly the profits of the railway system taken as a whole. The financial depression of 1893, which brought about a great change in the character of the coaching traffic, and the continued unfavourable character of the seasons, adversely affected the earnings of several years. The increased cost of fuel, and liberal advances granted to the wages staff materially augmented the working expenses, while the loss of revenue by the carriage of fodder and transfer of live-stock during drought years, at rates that were almost unremunerative, contributed greatly towards an increase in the proportion of working expenses to gross earnings.

The following table gives the percentage of earnings from the two sources of railway revenue:—

Year.	Percentage of Earnings.		Year.	Percentage of Earnings.	
	Coaching Traffic to Total.	Goods Traffic to Total.		Coaching Traffic to Total.	Goods Traffic to Total.
1860	73·0	27·0	1900	38·2	61·8
1865	56·0	44·0	1905	39·9	60·1
1870	38·4	61·6	1906	37·9	62·1
1875	33·5	66·5	1907	37·9	62·1
1880	33·6	66·4	1908	38·4	61·6
1885	38·2	61·8	1909	39·9	60·1
1890	40·2	59·8	1910	39·9	60·1
1895	35·1	64·9	1911	40·0	60·0

It will be observed that in the year 1860 the earnings from passenger traffic largely exceeded those from goods, but after that year the proportion derived from coaching traffic declined, reaching the minimum in 1875. This falling-off was due almost entirely to the considerable extension of the main lines through pastoral country, thinly populated, but well stocked with sheep and cattle, and consequently furnishing the railways with large quantities of produce for carriage to the sea-board. From 1880 to 1889, however, the percentage of receipts from coaching traffic steadily advanced, the proportion in the year last named being as high as 40·4 per cent. of the total revenue. A decline of the traffic is noticeable in 1895, followed by increases for the years 1900 and 1905, with only slight variations of the figures in subsequent years.

NET EARNINGS AND INTEREST ON CAPITAL.

The net revenue for the year ended 30th June, 1911, was £2,351,144; while the capital expended on lines open for traffic to that date was £50,971,894. The amount thus available, to meet the interest charges on the capital expended, represents a return of 4·61 per cent., which is 1·02 per cent. in excess of the interest payable on the public debt. In the discussion of the financial results of the working of the lines, it is the practice of railway authorities to compare the net returns with the nominal rate of interest payable on the railway loans or on the public debt of the State. An accurate comparison, however, can be made only by taking the average rate of interest payable on the actual sum obtained by the State for its outstanding loans, inasmuch

as many loans were floated below par. The following table shows the net earnings and the interest returned on the total capital expended on railways, including the cost of both construction and equipment for the year 1855 and subsequent periods:—

Year.	Net Earnings.	Interest on Capital.	Year.	Net Earnings.	Interest on Capital.
	£	per cent.		£	per cent.
1855	3,290	0·63	1900	1,394,052	3·63
1860	11,842	0·83	1905	1,491,869	3·46
1865	57,106	2·07	1906	1,926,407	4·42
1870	101,139	1·81	1907	2,209,665	4·96
1875	318,474	4·39	1908	2,229,295	4·88
1880	513,298	4·35	1909	2,075,626	4·36
1885	716,215	3·37	1910	2,209,306	4·52
1899	967,251	3·17	1911	2,351,144	4·61
1895	1,310,615	3·60			

The table below shows the rate of interest returned on the capital expenditure for each of the years since 1905, with the sum by which such return falls short of or exceeds the actual rate of interest payable on the cost of construction. The rate of return on capital represents the interest on the gross cost of the lines. The nominal amount of outstanding debentures and funded stock is less than the actual expenditure on construction and equipment, owing to the fact, as previously stated, that some loans have been redeemed; but as the redemption has been effected by means of fresh loans charged to general services, or by payments from the general revenue, and not out of railway earnings, no allowance on this account can reasonably be claimed:—

Year.	Interest returned on Capital.	Actual rate of Interest payable on Outstanding Loans.	Average Gain (+) or Loss (—).
	per cent.	per cent.	per cent.
1905	3·46	3·69	—0·23
1906	4·42	3·68	+0·74
1907	4·96	3·63	+1·33
1908	4·88	3·65	+1·23
1909	4·36	3·65	+0·71
1910	4·52	3·53	+0·99
1911	4·61	3·59	+1·02

As pointed out previously, the extension of the lines in sparsely populated districts was responsible for a considerable falling-off in profits for some years; but, generally speaking, the above returns give evidence of considerable improvement during the period; and this satisfactory state of affairs has been attained by careful and economical management.

The railways being owned by the State, public opinion at once demands a reduction in freights and rates, when the net earnings are much in excess of the interest requirements.

Substantial reductions in the goods and live-stock rates were made during 1911, aggregating £60,000 per annum. Passenger fares were also reduced

from 28th May, 1911, to the extent of £70,000 per annum. The amendments in freights were directed principally towards lessening the charges to settlers on pioneer lines, and to those whose distance from the market involved heavy expenditure in regard to transport.

The issue of return tickets to passengers has been practically abolished, except in those cases where the volume of return traffic would cause inconvenience to travellers, such as in suburban lines. The single fares have been reduced, so that two single tickets are now available at about the same cost as a return ticket under former system.

EARNINGS AND EXPENSES PER MILE.

Two important facts which demonstrate the financial position of the railways and the character of the management are the earnings per train mile and per average mile open. Although the returns now being realised cannot be compared with those of 1875, when the net earnings per train mile were a little short of 52d., and £777 per mile open, the earnings, with the exception of those for the years 1902, 1903, and 1904, are in every way encouraging. The transactions of the year 1911 show a decrease in the net earnings per train mile of 1·12d. as compared with those of the previous year, and it will be noticed that the net earnings per mile open have gradually decreased since the year 1908, the falling-off being due mainly to the increase in working expenses on account of renewals of rolling-stock and permanent way, expenditure caused by floods, and higher rates of pay to the staff under the awards of the Wages Boards. The gross earnings, expenditure, and net earnings per train mile and per average mile open since 1860 are set forth in the following table:—

Year.	Per train mile.			Per average mile open.			Year.	Per train mile.			Per average mile open.		
	Gross Earnings.	Expenditure.	Net Earnings.	Gross Earnings.	Expenditure.	Net Earnings.		Gross Earnings.	Expenditure.	Net Earnings.	Gross Earnings.	Expenditure.	Net Earnings.
	d.	d.	d.	£	£	£		d.	d.	d.	£	£	£
1860	83·37	67·52	15·85	889	720	169	1900	85·36	47·75	37·61	1,153	645	508
1865	82·42	54·07	28·35	1,161	762	399	1905	84·46	50·26	34·20	1,123	668	455
1870	81·81	54·86	26·95	907	608	299	1906	85·67	46·70	38·97	1,258	686	572
1875	100·20	48·28	51·92	1,499	722	777	1907	87·28	46·33	40·95	1,374	729	645
1880	86·02	47·99	38·03	1,475	823	652	1908	83·26	45·72	37·54	1,425	783	642
1885	78·61	52·72	25·89	1,307	877	430	1909	86·03	47·01	39·05	1,412	829	583
1890	78·90	49·91	28·99	1,209	765	444	1910	85·12	50·84	34·28	1,513	904	609
1895	90·16	49·54	41·42	1,144	623	521	1911	85·27	52·09	33·16	1,627	994	633

In many cases the railways of the State pass through heavy and mountainous country, involving steep gradients, some of the heaviest of which are situated on the trunk lines. For the more expeditious and economical working of the traffic, important deviations have been made, or are being carried out to secure better grades and to ease the curves, notably the Lithgow Zig-zag Deviation. In the southern system, the line at Roslyn, near Crookwell, reaches an altitude of 3,225 feet above sea-level; in the western, at Stanfield Station, near Blayney, a height of 3,673 feet is attained; and on the northern the highest point, 4,473 feet, is reached at Ben Lomond.

COACHING AND GOODS TRAFFIC.

Passenger Traffic.

The following table shows the number of passengers carried on the lines of the State, together with the receipts derived from the traffic, and the average receipts per journey since 1855 :—

Year.	Passenger Journeys.	Receipts from Coaching Traffic.	Average Receipts per Journey.
	No.	£	d.
1855	98,846	9,093	22·08
1860	551,044	45,428	19·79
1865	751,587	92,984	29·69
1870	776,707	117,854	36·42
1875	1,288,225	205,941	33·37
1880	5,440,138	390,149	17·21
1885	13,506,346	830,904	14·76
1890	17,071,945	1,059,791	14·90
1895	19,725,418	1,022,901	12·45
1900	26,486,873	1,227,355	11·12
1905	35,158,150	1,469,018	10·03
1906	37,500,531	1,604,349	10·27
1907	41,413,084	1,782,907	10·33
1908	47,487,030	1,896,720	9·59
1909	52,051,556	2,008,061	9·14
1910	53,644,271	2,124,292	9·50
1911	60,919,628	2,385,725	9·40

There has been a gradual decline in the receipts per journey, due no doubt to the large increase in suburban traffic, the reduction of season ticket fares, and the more general use of second-class carriages by all kinds of travellers.

A summary of the mileage of passengers on railway lines during the year 1911 is shown below :—

Description.	First Class.	Second Class.	Total.
SUBURBAN LINES.*			
	No.	No.	No.
Ordinary Passengers	3,368,952	18,088,554	21,457,506
Season Ticket Holders' Journeys	5,731,500	13,446,190	19,177,690
Workmen's Journeys ... ..	.....	13,467,852	13,467,852
Total Number of Passenger Journeys ...	9,100,452	45,002,596	54,103,048
	Miles.	Miles.	Miles.
Miles Travelled	61,997,017	305,732,325	367,729,342
Average Mileage per Passenger	6·81	6·79	6·80
	£	£	£
Amount Received from Passengers	136,462	489,704	626,166
	d.	d.	d.
Average Receipts per Passenger per Mile ...	·53	·38	·40
COUNTRY LINES.			
	No.	No.	No.
Passengers	1,673,240	5,143,340	6,816,580
Miles Trav. lled	221,392,216	317,095,330	538,487,546
	Miles.	Miles.	Miles.
Average Mileage per Passenger	132·31	61·65	79·00
	£	£	£
Amount Received from Passengers	610,120	838,574	1,448,694
	d.	d.	d.
Average Receipt per Passenger per Mile ...	·66	·63	·65

* Suburban Lines include distances within 34 miles of Sydney and Newcastle, including Richmond and Branxton Lines.

The number of journeys made by each person in the State now averages 37·2 per annum, as against 7·5 in 1880, and 1·6 in 1870. The increase has been exceedingly rapid, as will be seen from the following table :—

Year.	Number of Journeys.	Year.	Number of Journeys.
1855	0·4	1900	19·7
1860	1·6	1905	24·2
1865	1·9	1906	25·3
1870	1·6	1907	27·3
1875	2·3	1908	30·6
1880	7·5	1909	33·0
1885	14·6	1910	33·4
1890	15·8	1911	37·2
1895	15·9		

The average receipts from passenger traffic per head of population advanced very rapidly until 1890, when the amount stood at 16s. 5d., against 9s. 4d. in 1880. This was due not so much to the increased distance travelled by passengers as to the fact that the railway mileage increased at a greater rate than the population, enabling the public to indulge in a larger measure of railway travelling, in accordance with the well established rule that the more facilities for travelling are extended the greater will be the traffic. Subsequently to 1891 the average lessened for a period, but in recent years a further rise is evident, and the amount per capita is now 29s. 1d. In this connection it is interesting to note that the fares charged on the suburban lines, over which the majority of passengers travel, are very much less for both classes of travellers than the English rates, although the cost of working is considerably higher. The receipts from passenger traffic per head of the population will be found in the following figures :—

Year.	Amount per Capita.	Year.	Amount per Capita.
	s. d.		s. d.
1875	3 0	1905	16 8
1880	9 4	1908	20 4
1885	15 4	1909	21 10
1890	16 5	1910	22 8
1895	13 8	1911	25 4
1900	15 1		

Goods Traffic.

The following figures, extending as far back as the opening of the lines, show how greatly the goods traffic has expanded, especially in recent years :—

Year.	Tonnage of Goods and Live Stock.	Tonnage per head of Population	Earnings.	Year.	Tonnage of Goods and Live Stock.	Tonnage per head of Population	Earnings.
			£				£
1855	140	...	156	1900	5,531,511	4·1	1,936,217
1860	55,394	0·2	16,841	1905	6,724,215	4·6	2,214,998
1865	416,707	1·2	73,048	1906	7,629,492	5·1	2,630,442
1870	766,523	1·6	189,288	1907	8,793,832	5·8	2,926,499
1875	1,171,354	2·2	408,707	1908	10,175,389	6·6	3,047,414
1880	1,712,971	2·4	770,868	1909	9,298,928	5·9	2,969,400
1885	3,273,004	3·5	1,343,464	1910	8,393,038	5·2	3,295,948
1890	3,788,950	3·5	1,573,295	1911	10,355,565	6·3	3,590,229
1895	4,075,093	3·3	1,855,303				

The weight of goods and live stock carried per head of population in New South Wales compares favourably with that of many countries where railways have long been established, as may be seen from the figures given in a later table.

The accompanying statement shows the receipts per ton for carrying goods one mile along the lines of the State. The information relates back to 1872, when the charge was 3·6 pence, and after an interval of thirty-nine years it has fallen to 0·9d. The decrease, however, is to some degree only apparent, inasmuch as it represents a more extensive development of the mineral trade than of the carriage of general merchandise; but when due allowance has been made, it will be found that the benefit to the general producer and consumer has been very substantial, especially in regard to agricultural produce and live stock:—

1872	...	3·6d.	1895	...	1·6d.	1908	...	1·2d.
1875	...	3·1d.	1900	...	1·5d.	1909	...	1·0d.
1880	...	2·3d.	1905	...	1·2d.	1910	...	1·0d.
1885	...	1·9d.	1906	...	1·3d.	1911	...	0·9d.
1891	...	1·9d.	1907	...	1·3d.			

The revenue from goods and live-stock traffic per head of population rose rapidly from the opening of the lines until the year 1883, when it stood at 30s. 4d. Bad seasons in subsequent years caused a falling-off, so that by 1888 the average was only 27s. per inhabitant. For a number of years afterwards there was a steady increase, and in 1892 the average stood at 33s.; in 1894 this was decreased to 29s. 1d.; but in 1895 there was a rise to 29s. 11d. In 1896, owing chiefly to the diminished wool traffic, and partly also to the Newcastle strike, the figures dropped to 28s. 1d.; in 1897, there was a rise to 29s. 11d., but the effect of the drought was noticeable in 1898, when the average per head dropped to 29s. 2d. An improvement was, however, presented in 1899, 1901, 1902, and in each year from 1905 to 1908; and in 1911 the average per head rose to 43s. 9d. The results achieved must be regarded as very satisfactory, especially in the face of the recent general reduction in the freights:—

Year.	Goods revenue per head of Population.	Year.	Goods revenue per head of Population.
	£ s. d.		£ s. d.
1860	0 1 0	1900	1 8 10
1865	0 3 8	1905	1 10 6
1870	0 7 9	1906	1 15 5
1875	0 14 0	1907	1 18 7
1880	1 1 2	1908	1 19 3
1885	1 9 0	1909	1 17 0
1890	1 9 1	1910	2 1 0
1895	1 9 11	1911	2 3 9

TRAFFIC REQUIREMENTS.

The volume of traffic which has continued to expand on the Government Railways of New South Wales for the past eight years gives a record increase of revenue for the year 1911 of £556,490.

The remarkable development that has taken place will be apparent from the following results:—

	Increases during the four years ended 30th June, 1907.	Increases during the four years ended 30th June, 1911.	Increases during the eight years ended 30th June, 1911.	Percentage increase over 1903.
	£	£	£	£
Earnings from Coaching Traffic ...	377,019	669,069	1,046,088	74·41
Earnings from Goods and Live Stock ...	885,931	593,816	1,479,747	90·39
Earnings from Coal and Coke ...	131,563	69,914	201,477	74·10
Total Earnings ...	1,394,513	1,332,799	2,727,312	82·27
Passengers ...	No. 9,028,946	No. 19,506,544	No. 28,535,490	No. 88·12
Goods and Live Stock ...	Tons. 710,107	Tons. 1,172,548	Tons. 1,882,655	Tons. 78·01
Coal and Coke ...	1,487,484	389,185	1,876,669	44·86
Engines... ..	No. 97	No. 247	No. 344	No. 61·54
Tractive power of Engines ...	lb. 2,194,284	lb. 6,004,197	lb. 8,198,481	lb. 75·59
Coaching Vehicles ...	No. 72	No. 366	No. 438	No. 39·28
Capacity of Coaching Stock ...	Persons. 4,862	Persons. 20,572	Persons. 25,434	Persons. 68·47
Goods Vehicles ...	No. 220	No. 3,976	No. 4,196	No. 33·57
Increase capacity of Goods Stock ...	Tons. 4,663	Tons. 62,861	Tons. 67,524	Tons. 63·23

Rolling-stock.

The rolling-stock of New South Wales Railways, on the 30th June, 1911, reached a total of 19,897, viz., engines, 903; tenders, 746; coaching stock, 1,520; goods vehicles, 15,680; departmental stock, 1,048. These figures represent an increase on the figures of the previous year of 1,332, viz., engines, 31; tenders, 28; coaching stock, 100; goods vehicles, 1,153; departmental stock, 20. The number of engine miles run was 21,590,274, while the train miles numbered 17,006,697. All rolling-stock is fitted with the Westinghouse quick-acting freight brake appliances, and much progress has been made with the work of interlocking of points and signals.

Railway Accidents.

The railways of New South Wales have been as free from accidents of a serious character as the lines of most other countries. It is difficult to obtain a common basis of comparison; but the available figures are shown in the following table, which exhibits the number of passengers killed and injured per million persons carried. The figures are calculated over a period of five years and brought down to the latest available dates:—

Countries.	Accidents per million passengers carried.		Countries.	Accidents per million passengers carried.	
	Killed.	Injured.		Killed.	Injured.
Germany ...	0·09	0·45	Russia ...	1·62	8·43
Austria ...	0·06	1·86	United Kingdom ...	0·09	2·15
Hungary ...	0·24	1·24	Spain ...	0·61	2·73
Belgium ...	0·09	2·96	New South Wales ...	0·09	1·79
Sweden ...	0·20	0·30	Victoria ...	0·20	4·10
Norway ...	0·07	0·12	South Australia ...	0·27	2·06
Netherlands ...	0·07	0·31	New Zealand ...	0·93	1·59
Switzerland ...	0·14	1·05	United States ...	0·58	13·68

The above comparison is by no means convincing, as the question of the distance travelled by each passenger is an important element of the risk run, and is omitted from consideration. If this were made a factor, it would probably be found that the risk of each traveller by rail would show less variation in the different countries than appears to be the case from the figures quoted.

The persons meeting with accidents on railway lines may be grouped under three heads—passengers, employees, and trespassers; and the accidents themselves may be classified into those arising from causes beyond the control of the persons injured, and those due to misconduct or want of caution.

The accidents may be further subdivided into those connected with the movement of railway vehicles and those apart from such movement. Adopting such classifications, the returns for the quinquennial period terminating on the 30th June, 1911, show that in accidents connected with the movement of railway vehicles, through causes beyond the passengers' own control, only one was killed in over 255½ million carried, and 0·54 passengers per million carried were injured; and owing to misconduct or want of caution the rates of passengers killed and injured per million were 0·03 and 1·25 respectively. Further, in accidents apart from the movement of railway vehicles, 0·53 passengers per million carried were injured in consequence of their own misconduct or want of caution. It is satisfactory to state that during the year 1911 there were 60,919,628 passengers carried on the Government Railways of New South Wales without any train accident resulting in loss of life to any of the passengers.

In the following statement, particulars regarding accidents on the Government Railways of New South Wales are given for four years:—

Classification.	Accidents connected with the Movement of Railway Vehicles.				Accidents not connected with the Movement of Railway Vehicles.			
	1908.	1909.	1910.	1911.	1908.	1909.	1910.	1911.
Passengers—								
Causes beyond their own control—								
Killed	1	...	...	...	...	...	...	...
Injured	87	2	8	9	...	1	...	3
Their own misconduct, or want of caution—								
Killed	5	6	5	2	...	...	...	...
Injured	51	48	88	83	23	38	21	32
Servants of the Department—								
Causes beyond their own control—								
Killed ... ..	...	1	1	...	...	...	...	...
Injured	17	13	11	36	22	27	39	69
Their own misconduct, or want of caution—								
Killed	24	13	17	19	1	1	2	5
Injured	174	140	190	188	1,055	1,366	1,559	1,653
Trespassers and others—								
Killed	14	23	27	25	2	...	6	1
Injured	26	46	41	52	71	62	53	84
Total { Killed ...	44	43	50	46	3	1	8	6
Injured ...	355	249	338	368	1,171	1,494	1,672	1,841

The returns are compiled on lines similar to those adopted by the Board of Trade in England, and all accidents are reported which occur in the working of the railways, or on railway premises, to persons other than servants of the Department, however slight the injuries may be. In the case of servants

of the Department during the year 1908 only those accidents were reported which prevented the servant working for five hours on any one of the three working days next after the occurrence of the accident, but from the year 1909 all accidents are required to be reported which cause the servant to be absent for at least one whole day from his ordinary work.

The amount of compensation paid during the twelve months ended 30th June, 1911, in connection with accidents on railways, was £34,642, of which £1,672 was paid in respect of passengers, and £32,970 with regard to goods.

New South Wales and Other Countries.

The position of the railways of New South Wales in relation to other important countries of the world is shown in the following table; but it is necessary to remember that there are vital differences which really invalidate any effective comparison, as, for instance, differences in population, in class of goods carried, and in the competition or assistance which railways encounter from river or sea carriage. These are all factors in development quite apart from questions of control, of gauge, or of construction.

Country.	Length of Railway.	Per Mile of Line Open.			Tonnage. Per Capita.
		Population.	Area.	Cost.	
	miles.	No.	sq. miles.	£	tons.
<i>New South Wales</i> ...	3,902	425	79.5	13,578	6.9
United Kingdom ...	23,387	1,944	5.2	56,378	11.3
United States ...	233,863	373	12.7	14,937	17.6
Canada ...	24,104	298	154.7	14,005	9.3
Germany ...	35,475	1,775	5.9	22,455	7.9
Japan ...	5,292	9,430	27.9	9,069	0.5
Argentina ...	14,732	388	75.9	11,780	5.6
Victoria ...	3,510	372	25.0	12,286	3.6
South Australia ...	1,946	212	195.3	7,527	6.0
Queensland ...	3,843	151	174.5	6,415	5.0
Western Australia ...	2,987	93	326.7	4,645	15.4
New Zealand ...	2,717	362	38.6	10,494	5.6

PRIVATE RAILWAY LINES.

In New South Wales the established policy has been to keep the railways under State management and control, and at the present time there are only three private lines in operation, with the exception of short lines to connect coal and other mines with the main railways, on a few of which provision has been made for the carriage of passengers and goods.

In 1874 Parliament granted permission to a company to construct a line from Deniliquin, in the centre of the Riverina district, to Moama, on the River Murray, where it meets the railway system of Victoria. The line, which was opened in the year 1876, is 45 miles in length, and a considerable proportion of the wool and other produce of Riverina reaches the Melbourne market by this route. During the year 1888 a line, 35 miles 54 chains in length, was laid down from Silvertown and Broken Hill to the South Australian border. A short line connects Liverpool with the Warwick Farm Racecourse. The Seaham Coal Company's line connects the West Wallsend and Seaham Collieries with Cockle Creek; and the line of the Commonwealth Oil Corporation extends from Newnes, on the Western

line, to the Wolgan Valley. The following table shows the operations of all private railway lines during the year 1910:—

Name.	Line.		Total Capital Expended.	Reserve Fund.	Debentures Outstanding.	Passengers Carried.	Goods Carried.	Live Stock Carried.	Train Miles Run.
	Length.	Gauge.							
	m.	ch. ft. in.	£	£	£	No.	tons.	No.	No.
Deniliquin & Moama	45	0 5 3	162,672	14,016	20,000	15,117	19,733	282,331	38,184
Silverton ...	35	54 3 6	426,011	99,190	Nil.	44,534	1,003,850	21,463	153,345
Warwick Farm ...	0	66 4 8½	5,700	...	...	27,558	Nil.	562	49
Seaham Colliery ...	6	0 4 8½	16,000	...	...	14,908	5,614	2	5,870
East Greta...	8	0 4 8½	130,500	...	...	560,853	35,362		279,920
*Hexham-Minmi ...	6	0 4 8½	1,000,000	...	...	13,500	3,500		11,536
*Commonwealth Oil Corporation.	32	0 4 8½	180,367	...	...	1,750	12,580		26,450
*New Red Head ...	8	0 4 8½	90,000	...	...	...	.....		...

* Year ended 31st December, 1909.

The Deniliquin and Moama Company possesses 4 locomotives, 6 passenger carriages, and 63 goods carriages and vans; and the Silverton Company has 16 locomotives and 577 goods vehicles, passenger carriages being hired from the South Australian Government railways as required. On the Warwick Farm line Government rolling-stock is used. The Seaham Colliery has 2 locomotives and 5 passenger cars, but otherwise Government rolling-stock is used on these lines. On the East Greta Railway there are 14 locomotives, 29 passenger carriages, and 24 goods carriages. The Hexham-Minmi Company has 3 locomotives and 5 passenger carriages; and the Commonwealth Oil Corporation has 4 locomotives and 2 carriages.

In addition to the lines shown in the above table, there are several branches, connected principally with coal and other mines; a summary of them is given below:—

District.			Length.		Gauge.	
			m.	ch.	ft.	in.
Connected with Northern Line	...	...	95	54	4	8½
„ Western „	...	...	6	39	4	8½
„ South Coast „	...	...	3	40	3	6
			29	76	4	8½

UNIFICATION OF THE RAILWAY GAUGES OF AUSTRALIA.

It was originally intended that there should be only one gauge for all the railways of Australia, but, unfortunately for interstate communication, this intention was not carried into effect, and railway construction has proceeded without uniformity of gauge. In 1850, when the first railway was commenced, the Sydney Railroad and Tramway Company decided to adopt the 5 ft. 3 in. gauge, and an Act passed in 1852 provided that all the lines in New South Wales should be laid down to this standard. Three years later the Company altered its decision, the Act was repealed and another passed substituting the 4 ft. 8½ in. gauge for the 5 ft. 3 in.

This change was made without consulting the other States, and in Victoria the railway companies had already placed large orders for rolling-stock for the wider lines. The result is that all the railways of New South Wales have been constructed to the 4 ft. 8½ in. gauge, and all the Victorian to 5 ft. 3 in. In South Australia the 5 ft. 3 in. gauge was adopted at first, but on account of the lower cost of construction the more recent lines in that State, as well as

all the lines in the Northern Territory, Queensland, and Western Australia, have been built to a gauge of 3 ft. 6 in.

In consequence of this diversity of gauge interstate railway communication is seriously hampered; in a journey from Queensland to South Australia, breaks of gauge occur at Wallangarra, where the systems of Queensland and New South Wales meet, and at Albury, on the border of New South Wales and Victoria, while there is another change of gauge between Adelaide and Port Augusta or Oodnadatta, whence it is proposed to extend the lines across the Continent of Australia.

The desirability of dealing with this matter has been urged repeatedly by railway authorities and engineers, as the longer the work of conversion is delayed the greater the ultimate cost will be. The necessity of fixing a standard has, at the present time, been intensified by the determination of the Commonwealth Government to construct transcontinental lines. The requirements of the defence scheme also demand the immediate removal of the disabilities of military transport caused by want of uniformity.

In a report submitted to the Federal Parliament in September, 1911, by the Consulting Engineer to the Commonwealth it is stated that the consensus of opinion amongst railway engineers and managers is that variations of gauge should be avoided, and that in countries such as Australia there should be one gauge and that of suitable width for running heavy and long freight trains, and comfortable and swift passenger trains.

Some of the advantages which would result from unification of gauge are stated as follows:—

In the case of a shortage of rolling-stock in any State, waggons belonging to another State could be brought into use. It rarely happens that all the States, or even all districts, have similar seasons at the same time, but, during droughts, serious losses have frequently occurred owing to an insufficiency of rolling-stock to remove sheep and cattle to more favourable localities. If the resources of other States could have been taken advantage of these losses would have been averted.

There would be increased facilities for the interchange of products, and as regards passenger traffic the discomfort and loss of time which now takes place at border stations would cease. These delays in transhipment would entail very serious consequences should occasion necessitate the transfer of troops and materials of war across the borders.

The question of fixing the standard gauge has been the subject of many diverse professional opinions. The New South Wales gauge of 4 ft. 8½ in. was recommended by the chief railway engineers of the five States when reporting upon the selection of the route for the Port Augusta-Kalgoorlie railway, by the Railway War Council, and by the Commonwealth consulting engineer.

As regards the method to be adopted for the conversion without interruption of the traffic the consulting engineer recommends a trial of the third rail, producing what is called the mixed gauge. This system has been effectively used in Great Britain. In that country the generally-adopted gauge was 4 ft. 8½ in., but the width of the Great Western Railway was 7 ft. 0½ in. The directors of this company decided to bring their system into uniformity with the rest of the English and Scotch railways; a third rail was laid down over the Great Western Railway and other adjoining lines so that the rolling-stock of the narrow gauge could be used over the lines of the other system as well, until it was found possible to withdraw the last of the wider rolling-stock and remove the outer rail.

The change from the Victorian gauge could be carried out easily without interruption of traffic—the commencement to be made by laying a third rail

over the section from Albury to Melbourne. All new Victorian rolling-stock would then be built to the narrower gauge, and a proportion of the existing stock altered. On completion of the latter, the outer rail could be taken up and utilised for another section. Thus in from five to ten years the whole of the 5 ft. 3 in. gauge system of Victoria and South Australia would be converted.

The conversion of the narrower gauge lines to wider would entail greater expense, as it would be necessary to alter tunnels, bridges, &c.

The classification of the Government Railways in each State according to gauge may be seen below:—

State.	Mileage with Gauge.					Total Miles.
	2-ft.	2 ft. 6 in.	3 ft. 6 in.	4 ft. 8½ in.	5 ft. 3 in.	
New South Wales ... ..	.....	.....	.....	3,761	.....	3,761
Victoria ... ..	.....	121	.....	.....	3,402	3,523
Queensland ... ..	.....	.....	3,868	.....	.....	3,868
South Australia ... ..	.....	.....	1,459*	.....	622	2,081
Western Australia ... ..	.....	.....	2,376	.....	.....	2,376
Tasmania ... ..	.....	121	7,703	3,761	4,024	15,609
Commonwealth	23	.....	446	.....	.....	469
	23	121	8,149	3,761	4,024	16,078

* Includes Palmerston Line and Port Augusta to Oodnadatta Line.

TRANSCONTINENTAL RAILWAYS.

It is the intention of the Federal Government to construct transcontinental railway lines to bring the States of the continent of Australia into direct communication. A Bill to authorise the construction of a line from Port Augusta in South Australia to Kalgoorlie in Western Australia is now under consideration of the Commonwealth Parliament. The length of the proposed line is about 1,100 miles, and the cost of construction and equipment is estimated at £3,988,000. This line is required to facilitate the transport of troops, &c., in time of war, and would considerably accelerate the transit of European mails.

Under the provisions of the Northern Territory Acceptance Act the South Australian Government transferred to the Commonwealth on 1st January, 1911, the line from Port Augusta to Oodnadatta, as well as the Northern Territory railway, from Palmerston to Pine Creek. The Commonwealth has agreed to construct a line across the continent to connect these systems. These lines are now controlled by the South Australian Railways Commissioner on behalf of the Federal Government.

THE WAR RAILWAY COUNCIL.

Acting on the advice tendered by Lord Kitchener in his Report on the Defence of Australia, the Commonwealth War Railway Council has been formed for the administration of the railways for the requirements of defence. A council consisting of the Minister for Defence, staff officers of the military and naval forces, the State Railway Commissioners, and the railway

and military consulting engineers of the Commonwealth met in February, 1911. The resolutions passed included the following recommendations:—

Definite military constitution for members of the War Railway Council, formed of eleven members:—The quartermaster-general or other staff officer at headquarters, as president, the senior officer of the engineer and railway staff corps of the Commonwealth system, and of each State railway system, the consulting military engineer, and representatives of the naval and military forces; a military officer detailed by the Military Board to act as secretary.

The creation of an Engineer and Railway Staff Corps composed of Commonwealth and State railway officials with honorary military rank; the establishment at the commencement to consist of eleven railway Commissioners and general managers from the six States, and thirty-seven members of the maintenance, traffic, locomotive, and electrical branches of the State railway staffs.

The duties of the Council to be—(1) Generally, to furnish advice on such railway matters as are referred to it by the Minister for Defence, and in particular, (2) to determine the method of supplying information to and obtaining it from the various railway departments, (3) to suggest regulations and instructions for carrying out movements of troops, (4) to suggest method of organising railway staff officers in time of war as intermediaries between the various railway authorities and the troops, (5) to consider the question of extra sidings, loading platforms, &c., and proposals towards unification of gauges, (6) to suggest the organisation and system of training of railway troops, when the development of Universal Training supplies sufficient *personnel*, whose ordinary employment is railway work, and (7) in time of war to advise on questions of mobilisation.

The procedure of the Council and the control of the railways in time of war were also dealt with, and the Council affirmed the desirability, as regards the main lines of communication, of a uniform gauge for the railways of Australia, and recommended a uniform 4 ft. 8½ in. gauge, linking up the capitals between Brisbane and Fremantle; and a gauge of 4 ft. 8½ in. on the transcontinental line from Kalgoorlie to Port Augusta; and that the cost of conversion be shared upon a basis to be determined between the Commonwealth and the States.

TRAMWAYS.

The tramways are chiefly the property of the State Government, and are under the control of a Tramway Commissioner. There were, in June, 1911, eleven distinct systems of tramways in operation, viz., City and Suburban electric, 97 miles 15 chains; North Sydney electric, 16 miles 58 chains; Ashfield, Mortlake, and Cabarita steam, 8 miles 36 chains; Arncliffe to Bexley steam, 2 miles 50 chains; Kogarah-Sans Souci steam, 5 miles 45 chains; Newcastle City and Suburban steam, 24 miles 51 chains; Broken Hill steam, 9 miles 9 chains; Parramatta-Castle Hill steam, 6 miles 55 chains; Manly to The Spit and Brookvale electric, 6 miles 61 chains; East and West Maitland steam, 4 miles 47 chains; Sutherland to Cronulla steam, 7 miles 32 chains; total, 189 miles 59 chains.

The standard gauge of 4 ft. 8½ in. has been adopted for all the State Tramways.

The electric system for tramways was introduced into Sydney at the close of 1899, and the conversion of the steam tramways in the metropolitan district into an electrical system completed.

The following table gives some interesting particulars respecting the metropolitan tramways, including the North Sydney line, but excluding the Ashfield, Arncliffe, Kogarah, and Manly lines. In the year 1879, the tramways were open for only three and a half months, and for part of that time were worked by horse-power. The accounts since 1887 have been made up to the 30th June in each year :—

Year.	Length of Line.	Total Earnings.	Working Expenses.	Proportion of working cost to gross earnings.	Net Earnings.	Capital Cost.	Interest on Capital.
	miles.	£	£	d.	£	£	percent.
1879	1½	4,416	2,278	51·59	2,138	22,269	33·00
1880	4	18,980	13,444	70·83	5,536	60,218	12·34
1885	27½	223,340	207,995	93·13	15,345	708,109	2·17
1890	32	258,991	215,856	83·34	43,135	864,367	4·99
1895	44½	242,991	196,436	80·84	46,555	1,103,362	4·22
1900	54½	342,024	288,845	84·45	53,179	1,560,539	3·41
1905	85½	747,717	623,371	83·37	124,346	3,229,080	3·85
1906	85½	782,617	597,953	76·40	184,664	3,259,926	5·66
1907	87½	832,202	662,187	79·57	170,015	3,247,817	5·23
1908	89½	925,224	735,442	79·49	189,782	3,288,480	5·77
1909	103½	1,009,498	785,404	77·80	224,094	3,756,198	5·97
1910	111	1,092,582	888,415	81·31	204,167	4,235,170	4·82
1911	114	1,247,520	1,023,542	82·05	223,978	4,472,731	5·01

The undermentioned figures show the expansion of the tram mileage in the metropolis, including North Sydney, and the earnings and working cost per tram mile up to the 30th June, 1911 :—

Year.	Tram Mileage.	Earnings per Tram Mile.	Working cost per Tram Mile.
		s. d.	s. d.
1879	13,270	6 7·9	3 5·2
1880	84,074	4 6·2	3 2·4
1885	1,220,500	3 7·9	3 4·9
1890	1,540,833	3 4·3	2 9·6
1895	1,854,595	2 7·4	2 1·4
1900	3,412,445	2 0·6	1 8·3
1905	15,488,016	0 11·6	0 9·7
1906	15,365,478	1 0·2	0 9·3
1907	15,655,953	1 0·8	0 10·2
1908	16,517,552	1 1·4	0 10·7
1909	17,813,394	1 1·6	0 10·6
1910	19,395,021	1 1·5	0 11·0
1911	21,036,869	1 2·2	0 11·7

The tramways have for many years yielded more than the cost of working and interest. It must, however, be remembered that the State does not set apart any portion of the earnings for renewals, which may hereafter prove a considerable item.

The fares charged on the tramways are on the average about 0·61d. per mile, the lines being divided into penny sections of about $1\frac{1}{2}$ mile. For the Metropolitan area the average length of the sections is about $1\frac{1}{2}$ mile, and the fare per mile 0·59d.

The following statement shows the working of the various tramways in sections for the year ended 30th June, 1911. Although ten sections experienced a loss during the period, the total net revenue on all lines, amounting to £47,627, returns a profit of 0·93 per cent. after allowing for interest on capital invested:—

Line.	Cost of Construction and Equipment.	Passengers Carried.	Gross Revenue.	Working Expenses.	Interest on Capital.	Profit + Loss —
	£	No.	£	£	£	£
City and Suburban—Electric	4,029,389	197,871,083	1,161,184	946,671	138,836	+75,677
North Sydney—Electric	443,342	15,896,835	86,336	76,871	15,494	—6,029
Ashfield to Moutlake and Cabarita—Steam	69,133	1,730,048	10,490	12,876	2,106	—4,492
Arncliffe to Bexley—Steam	19,755	302,920	1,596	2,653	692	—1,749
Kogarah to Sans Souci—Steam	18,840	515,988	4,472	5,682	677	—1,887
Manly to Brookvale and the Spit—Steam*	112,509	1,206,657	9,152	9,687	2,786	—3,321
Parramatta to Castle Hill—Steam.. ..	36,524	616,766	5,074	4,755	1,272	—953
Newcastle City and Suburban—Steam ..	241,779	8,722,928	63,567	60,372	8,205	—5,010
Broken Hill—Steam	75,221	2,576,654	18,275	19,515	2,688	—3,928
East to West Maitland—Steam	38,089	820,494	5,224	4,541	1,290	—607
Sutherland to Cronulla—Steam	37,005	15,556	261	326	9	—74
Total, All Lines	5,121,586	230,275,938	1,365,631	1,143,949	174,055	+47,627

* Converted to electric traction 1st May, 1911.

In the following table are given details of revenue and expenditure, and capital invested for all State tramways, since their inception in 1879. The net earnings of the tramways for the year 1911 amounted to 4·33 per cent. on cost of construction and equipment, which compares favourably with 3·59 per cent., the actual interest on the public debt, taking into consideration the actual sum obtained by the State for its loans, many of which were floated below par:—

Year.	Total Length of Lines.	Capital Expended on Lines open for Traffic.	Gross Revenue.	Working Expenses.	Net Earnings.
	Miles.	£	£	£	£
1879	1 $\frac{1}{2}$	22,061	4,416	2,278	2,138
1880	4 $\frac{1}{2}$	60,218	18,980	13,444	5,536
1885	35	748,506	227,144	207,898	19,246
1890	39 $\frac{1}{2}$	933,614	268,962	224,073	44,889
1895	61	1,428,518	232,316	230,993	51,323
1900	71 $\frac{1}{2}$	1,924,720	409,724	341,127	68,597
1905	125 $\frac{1}{2}$	3,637,922	813,569	685,682	127,887
1906	126	3,669,096	851,483	665,083	186,400
1907	128 $\frac{1}{2}$	2,669,524	908,701	727,947	180,754
1908	132 $\frac{1}{2}$	3,732,901	1,011,994	809,065	202,929
1909	151 $\frac{1}{2}$	4,252,731	1,097,565	875,560	222,005
1910	165 $\frac{1}{2}$	4,668,797	1,185,563	983,587	201,981
1911	189 $\frac{1}{2}$	5,121,586	1,365,631	1,143,949	221,682

Of the 189 $\frac{3}{4}$ miles of tramway line open in 1911, there were 120 $\frac{3}{4}$ under the electric system and 69 miles under steam.

The tramway rolling-stock, on the 30th June, 1911, consisted of 21 steam motors, 76 steam cars, 940 motors and 45 trail cars for electric lines, and 63 service vehicles, making a total of 1,145. The tram mileage during the year was 22,541,429, being an increase of 1,962,043 miles on that of the preceding year.

CARRIAGE OF GOODS BY TRAMWAYS.

Late in the year 1911 it was proposed by the Government that Parliament should pass an Act permitting the carriage for any private person of goods, more particularly bricks and heavy building material, on the State Tramways.

Although the tram lines are fully capable of carrying heavy goods and the track is ballasted equal to the railways, up to the present time only passengers are carried, and such material as occasionally may be needed for tramway requirements.

TRAMWAY ACCIDENTS.

The accidents which occurred on tramways during the last four years are classified in the subjoined table, having been tabulated on similar lines to those relating to the railways:—

Classification.	Accidents connected with the Movement of Tramway Vehicles.				Accidents not connected with the Movement of Tramway Vehicles.			
	1908.	1909.	1910.	1911.	1908.	1909.	1910.	1911.
Passengers—								
Causes beyond their own control—								
Killed ... ..	...	...	...	...	...	...	...	...
Injured	97	64	133	149	1	...	...	2
Their own misconduct, or want of caution—								
Killed	8	6	6	11	...	...	...	...
Injured	227	206	214	276	7	10	6	7
Servants of the Department—								
Causes beyond their own control—								
Killed	2	...	...	1	...	...	...	...
Injured	9	20	25	48	8	21	7	23
Their own misconduct, or want of caution—								
Killed	1	1	...	1	...	...	1	...
Injured	135	167	158	164	246	360	331	382
Others—								
Killed	15	12	18	18	...	...	1	1
Injured	179	183	214	324	11	5	2	9
Total { Killed	26	19	24	31	...	...	2	1
{ Injured	647	640	744	961	273	396	346	423

As the tramways usually traverse crowded streets, the number of accidents must be considered very small.

The number of passengers carried on the tramways during the year ended 30th June, 1911, was 230,275, 938, which would give the rate of fatal accidents to passengers as 0·05 per million. All these fatal accidents, as in the previous three years, were ascribed entirely to misconduct or want of caution on the part of passengers.

The amount of compensation paid during the twelve months ended 30th June, 1911, in respect of accidents on the tramways was £19,867, as compared with £20,078 for the preceding year.

EMPLOYMENT AND WAGES.

The account of wages paid, together with the staff employed on the railways and tramways during the financial year 1911, is shown in the following statement, in comparison with the previous year:—

Particulars.	Year ended 30th June, 1911.			Year ended 30th June, 1910.		
	Railways.	Tramways.	Total.	Railways.	Tramways.	Total.
	No.	No.	No.	No.	No.	No.
Persons employed—						
Salaried staff ..	2,799	351	3,150	2,369	313	2,682
Wages „ ...	21,388	6,943	28,331	17,854	6,063	23,922
Total ...	24,187	7,294	31,481	20,223	6,381	26,604
Wages paid—	£	£	£	£	£	£
Maintenance Branch	888,472	154,686	1,043,158	828,277	135,280	963,557
Locomotive „	1,127,310	.....	1,127,310	998,308	.....	998,308
Electric „	.....	237,079	237,079	.....	201,552	201,552
Traffic „	519,949	439,192	959,141	457,640	389,081	846,721
Total ...	2,535,731	830,957	3,366,688	2,284,225	725,913	3,010,138

The total staff employed during the year ended 30th June, 1911, exceeded that of the previous year by 4,877, and the amount of wages paid increased by £356,550. The wages per employee on the wages staff—railways and tramways—averaged £118 16s. 8d. for the twelve months.

PRIVATE TRAMWAYS.

There are two tramways under private control within the State. One of these branches from the Illawarra line at Rockdale, in the Metropolitan area, and runs to Brighton-le-Sands, a distance of 1 mile 20 chains. The line was constructed in 1885, and the original motive power was steam, subsequently converted into electric. The other, a steam tramway, passes through the township of Parramatta, commencing at the Park and continuing as far as the Newington Wharf at Duck River, a distance of 2 miles 66 chains, where it connects with the Parramatta River steamers conveying passengers and goods to and from Sydney. The line was opened in 1883.

Like the State railways and tramways, all private tramways have been constructed to the standard gauge of 4 ft. 8½ in.

ROADS AND BRIDGES.

THE first main roads in New South Wales were formed to connect the towns of Parramatta, Liverpool, Windsor, and Penrith with Sydney. All access to the interior of the country was considered barred by the apparently insurmountable sandstone precipices rising on the farther side of the Nepean, and until the year 1813 no effort to cross the mountains was attended with success. In that year, however, after a protracted season of drought, involving heavy losses of stock, the settlers recognised that the future of the country depended on an extension of the pastoral area beyond its then contracted limits, and three explorers, Blaxland, Lawson, and Wentworth, again essayed the task of finding a way over the mountains. After encountering tremendous difficulties, they succeeded in crossing the range, and discovered the rich pastures of the Bathurst Plains. Shortly after their return, Governor Macquarie despatched a party of surveyors to determine the practicability of making a road. The report was favourable, the construction of a track was at once begun, and the Great Western Road was completed as far as Bathurst on the 21st January, 1815.

The opening up of the fertile lands around Bathurst by means of this mountain road gave such an impetus to settlement that it was found impossible to keep pace in the matter of road-making with the demands of the settlers. The authorities, therefore, for many years confined their attention to the maintenance of roads already constructed, and extended them in the direction of the principal centres of settlement. Had the progress of settlement subsequent to 1850 been as slow as that of the preceding years, this system would have sufficed; such, however, was not the case. The discovery of gold completely altered the circumstances, and during the period of excitement and change which followed, so many new roads were opened, and traffic increased to such an extent, that the general condition of the public highways was by no means good. While yeoman service was done by the road pioneers prior to 1857, the modern system of road-making may be said to have begun in that year, consequent on the creation of the Roads Department, which was formed to take control of the roads. It was not, however, until 1864, that the whole of the roads, both main and subordinate, received consideration by the Government.

The principal main roads are:—

Northern Road—length, 405 miles, from Morpeth to Maryland, on the Queensland border.

Western Road—length, 513 miles, from Sydney, through Bathurst, Orange, and many other important townships, to the Darling River, at Bourke.

Southern Road—length, 385 miles, from Sydney to Albury. This road was, before the construction of the railway, the great highway between Sydney and Melbourne.

South Coast Road—length, 250 miles. This road after leaving Campbelltown, ascends the coast range, along the top of which it runs as far as Coal Cliff. It then traverses the Illawarra district, parallel to the coast, and passes through the rich lands watered by the Shoalhaven, Clyde, and Moruya Rivers, as far as Bega, whence it extends as a minor road to the southern limits of the State.

In no case has any of these roads the importance which it formerly possessed. The railways of the State for the greater part follow the direction of the main roads, and attract nearly all the through traffic. Thus many roads on which heavy expenditure has taken place have been more

or less superseded, and the opening of new roads has been rendered necessary to act as feeders to the railways from outlying districts.

In many places the subdivision of both Crown and private lands for closer settlement has given an impetus to cultivation and dairying; and especially in the latter case is it necessary to provide for constant traffic, which, from the nature of the industry, requires good roads in all seasons.

With the expansion of closer settlement an important departure has been made from the policy hitherto pursued of opening roads after settlement has taken place. Under the old system, settlers took up the land, which, in course of time, became more valuable by reason of the improved approaches provided at the expense of the State. But many large areas have been made available during recent years, and it has been decided that roads of access shall be made fit for traffic, as far as possible, before the blocks are offered for selection. The Department has the opportunity of selecting routes on the most suitable gradients and locations, thus avoiding the expense of subsequent deviations, while the Crown will be recouped to some extent for the outlay incurred by the additional value received for the land. The most notable of these cases is the system of roads in the Dorriggo subdivision.

ROADS PRIOR TO 1907.

Prior to 1907, when the Local Government Act came into effect, the State was divided into road districts, each of which was placed under the supervision of an officer directly responsible to the Commissioner for Roads. These officers had under their care the greater part of the roads of the State outside the incorporated areas, as well as a portion of those within such limits. The road trusts had the supervision of the expenditure of certain grants for the maintenance of roads in districts chiefly of minor importance, as well as some important roads in the vicinity of the metropolis.

The length of roads under Government control on the 30th June, 1906, was 48,311 miles, while 195 miles were under the care of road trusts, and 1,338 miles within the municipal areas were subsidised by the Government, making a total of 49,844 miles. There were also about 8,000 miles of roads and streets belonging to the municipal councils. In addition to the roads mentioned, there were about 1,500 miles of mountain passes, many of which presented most formidable difficulties, and their construction reflects great credit upon the engineering skill of the Department, which for so many years designed and supervised the construction and maintenance of the roads and bridges of the State.

LENGTH OF ROADS IN THE STATE.

On the 1st January, 1907, the administration of the bulk of the works under the control of the Road and Bridges Department (with the exception of those in the unincorporated areas of the Western Division, and certain bridges and ferries proclaimed as "national works") were transferred by the operation of the Local Government Act of 1906 to the shires and municipal councils. Power is given to the Minister for Works to pay subsidies to the councils to maintain the roads and for the satisfactory maintenance of such thoroughfares as were proclaimed main roads prior to the passing of the Act.

The roads leading to and within the areas of Crown lands which it is proposed to make available for closer settlement are constructed by the Government before transfer to the shires, also certain roads required mainly for tourists in districts not likely to produce revenue in rates to the councils.

The length of roads in the State in 1911 was, approximately, 83,193 miles, of which 9,513 miles were controlled by the municipalities, 67,490 miles by the shires, and 6,190 miles were in the unincorporated areas of the

Western Division. The nature of these roads may be seen in the following statement:—

Divisions.	Mettled, Gravelled, Ballasted, &c.	Formed only.	Cleared only.	Natural surface.	Total.
	miles.	miles.	miles.	miles.	miles.
Municipalities	3,498	1,734	1,997	2,284	9,513
Shires	10,548	7,535	18,757	30,650	67,490
Western Division	80	137	2,669	3,304	6,190
Total	14,126	9,406	23,423	36,238	83,193

SURVEY, &c., OF NEW ROADS.

The operation of the Local Government Act, 1906, and of the Local Government (Amending) Act, 1908, in regard to the establishment of roads as "Public Roads," as required by municipal and shire councils, has, so far, caused no diminution of the work of the Roads Branch of the Department of Lands. In the following table figures for the years ended 30th June, 1909, and 1910, are compared:—

		1909.	1910.
Applications for survey for establishment of roads and for alignment of streets.	{ Number	670	679
	{ Length	570 miles.	850 miles.
Road plans received, for establishment by resumption or withdrawal.	{ Number	319	486
	{ Length	435 miles.	569 miles.
Alignment plans received for action for alignment.	{ Number	34	24
	{ No. of Streets.	113	98
Unnecessary roads or Crown land granted in lieu of land resumed for roads.	{ Cases	169	66
	{ Area	1,790 acres.	1,096 acres.

PYRMONT AND GLEBE ISLAND BRIDGES.

Many of the earliest bridges erected in the State were built of stone, and are in existence still. Those erected in the period following the extension of settlement to the interior were principally of timber, and have since been replaced after an average life of about twenty-five years. Nearly all the large bridges of recent date are of iron and steel, and some of them have been erected under difficult engineering conditions, owing to the peculiarity of the river flow in certain parts of the country. Perhaps the most important of these works constructed in the State are the Pyrmont and Glebe Island bridges near Sydney. The total length of the Pyrmont structure and its approaches is 1,758 feet. The bridge itself spans a distance of 1,209 feet, of which the swing span represents 223 feet, the remainder being covered by the twelve side spans, each of 82 feet 4 inches. The swing span, weighing 800 tons, is carried on a pivot which has its foundation on a caisson of 42 feet diameter, sunk to a depth of 62 feet. Its floor space is 12,000 superficial feet, as against 10,600 on the Newcastle-on-Tyne bridge, and the roadway is 4 feet wider than that on the Tower Bridge of London. The swing is operated by two 50-h.p. electrical motors supplied with power from the Ultimo Power-house, and can be opened or closed in forty-four seconds, at a cost of five farthings for the double operation, which includes the opening and closing of the gates as well as the swing. The total cost of this bridge was £145,189.

The Glebe Island Bridge is over 2,300 feet long, and consists of a steel swing bridge in the centre of the bay, with a stone causeway approach to either shore. A steel over-bridge is provided on the Glebe side to permit of traffic thereunder to the area on the northern side of the bridge, which

has been made by partly cutting down Glebe Island, and reclaiming with the debris a valuable deep-water frontage of 2,800 feet, with 13 acres of level land, which will soon be connected with the railway system of the State by a goods railway from Flemington to Belmore, and Wardell-road to Glebe Island and Darling Island. The main bridge is 353½ feet long between abutments, and possesses a steel swing span, 191 feet 2 inches long, affording two clear waterways, each of 60 feet, for shipping, as against one of 34 feet in the old swing. This increase in waterway permits of the passage of large oversea vessels, thus opening up the great possibilities of the frontages to the south of the bridge. The two steel side spans are 81 feet 2 inches centres, affording 20 feet clear headway above high-water mark in lieu of the 12 feet available in the old bridge. The bridge is provided with a steel floor carrying a 40-foot wood-blocked carriage-way and two 5-foot footpaths, which enormously improves the travelling facilities, and allows the easy movement of electric trams across the bridge. The swing span, though smaller than at Pymont, contains a floor space of 9,600 feet, which compares favourably with the swings in Clarence Bridge at Cardiff (7,640 square feet), the Hawarden Bridge (8,470 feet), or the bridges over the Manchester Ship Canal (9,430); and is but little less than that provided on the swing in the well-known bridge at Newcastle-on-Tyne, which is understood to have a larger floor space than any other bridge in the United Kingdom. The total weight of the swing span of the Glebe Island Bridge is 650 tons, and it revolves on a cast-steel roller 37 feet in diameter, carrying steel-covered treads. The swing, as well as the gates cutting off the road traffic at either end of the swing span, are operated by electricity, and it is possible to open or close the swing in forty-four seconds. The cost of this bridge was £107,000.

NUMBER OF BRIDGES PRIOR TO 1907.

On the 1st January, 1907, the period of the inception of the Local Government Act, the bridges of 20 feet span and over, including those in course of construction, numbered about 3,575. Of these, 256 bridges, of an aggregate length of 101,416 feet, which by reason of their cost, size, and extra-local importance would constitute a strain on the resources of the local councils, were proclaimed as "national works," and will be maintained by the Government.

Where local conditions and limited traffic have not favoured the erection of a bridge, a punt or ferry has been introduced. The most important ferries which are worked otherwise than by hand, have been proclaimed as national services. Prior to the 1st December, 1907, it was the practice to charge a small fee for ferry transit; but on that date tolls were abolished, and public ferries are now free.

BRIDGES, &C., IN THE STATE.

The particulars of the bridges, culverts, and ferries of the State in 1911 are shown below:—

	Bridges over 20 feet span.		Culverts.		Ferries.
	No.	Length.	No.	Length.	No.
		ft.		ft.	
National Works	265	105,322	.....	.....	11
Municipalities	744	44,323	3,878	122,782	16
Shires	3,146	188,397	29,560	259,513	91
Western Division (unincorporated)	124	21,815	107	1,435	5
Total	4,279	359,857	33,545	383,730	123

HAWKESBURY RIVER RAILWAY BRIDGE.

Included with the 4,279 bridges on which the roads of the State are carried, there are, in addition to the Pyrmont and Glebe Island bridges previously referred to, many deserving of special notice, from the fact that great engineering difficulties have been overcome in their construction, apart from the architectural beauty of design, and high-class workmanship shown in the structures; but the bridge which might well rank as the most important in the State is the Hawkesbury River Railway Bridge.

This bridge is the largest of its kind in Australia, and, as regards its foundations, one of the most remarkable in the world.

It crosses the Hawkesbury River at a distance of 36 miles from Sydney.

The bridge was the last link in the continuous all-rail connection between New South Wales and the States of South Australia, Victoria, and Queensland.

There are in the bridge seven spans of 416 feet from centre to centre of the piers, the length of the bridge between abutments being 2,900 feet.

The caisson for each pier is rectangular in form, with rounded ends, 48 feet by 20 feet, splaying out 2 feet wider all round at the bottom. The depths in feet of the six caissons below high-water level to which they were sunk, range from 101 feet to 162 feet, the last being the deepest bridge foundation in the world.

The roadway was completed on 23rd April, 1889, and after being thoroughly tested was formally opened for railway traffic on 1st May, 1889.

COMMUNICATION BETWEEN SYDNEY AND NORTH SYDNEY.

With reference to roads and bridges mention should be made of the question of providing improved means of communication between Sydney and North Sydney, which has been prominently before the public for more than thirty years. The population of the North Shore districts of the harbour has increased at a great rate, and since provision has to be made for the conveyance of passengers and vehicles by steamers across the harbour, it can be understood that the difficulties of harbour navigation are largely contributed to by the necessarily numerous ferry steamers now running from and to the Circular Quay.

Many proposals for various descriptions of bridges and subways have been submitted as methods of communication.

The report of the Royal Commission on communication between Sydney and North Sydney presented in March, 1909, concluded, that having thoroughly weighed the evidence, and considered all the circumstances, the Commissioners were of opinion that it was expedient to promptly provide increased and improved facilities of communication upon the following grounds:—(1) Public safety and convenience; (2) Economy of time; (3) Minimising the number of steam ferry-boats crossing the harbour from Circular Quay; (4) Reducing the congestion of ferry traffic; (5) Assisting to reduce impediments to shipping passing up and down the fairway of the harbour.

The Commissioners considered that the best practical and most economical method of establishing such direct communication, and avoiding obstruction to harbour navigation, was by subways.

The railway and tramway subways to permit of rolling stock of standard dimensions being used with electricity as a motive power.

The reasons for these conclusions were set out fully in the report.

On the 30th November, 1911, Parliament referred three distinct proposals to the Parliamentary Standing Committee on Public Works, on the subject of communication between Sydney and North Sydney. These references are as follows:—

- (1) To consider and report upon the expediency of constructing a subway from Circular Quay, *viâ* Fort Macquarie and Kirribilli Point, to Lavender Bay, for the purpose of affording railway communication between Sydney and North Sydney.
- (2) To consider and report upon the expediency of connecting Sydney and North Sydney by means of a bridge.
- (3) To consider and report upon the expediency of a scheme for the establishment of passenger ferry services between Sydney and Milson's Point, and Sydney and McMahon's Point, and vehicular services between Sydney and McMahon's Point, and Woolloomooloo Bay and Cremorne.

GOVERNMENT EXPENDITURE ON ROADS, BRIDGES, &c.

Although roads as the main arteries of traffic from the metropolis to the interior have been superseded by the railways, nevertheless they are still the sole means of communication throughout a large part of the interior, and serve as most valuable feeders to the railway system of the country. No revenue is derived directly from roads, but their indirect advantages to the country have been very great, and after the lands and the railways and tramways, they form the largest item of national property.

It is estimated that £24,745,000 has been expended directly by the Department of Public Works on roads and bridges since 1857.

Since the 1st January, 1907, the administration of all roads, bridges, punts, ferries, jetties, public watering places, &c., (other than those classed as national works and services) of municipalities and shires within the Eastern and Central Divisions, and the financial responsibilities therewith, were transferred under the Local Government Act, 1906, to the municipal and shire councils. The funds of both shires and municipalities may now, however, be subsidised, and shires are entitled to receive annually a total sum of at least £150,000 from the State.

In addition to the endowment and grants, the Government is still responsible for the administration and expenditure on account of public works and services within the Western Division.

The amount expended direct by the State Government on roads and bridges during each year since 1907 has decreased, and for the year ended 30th June, 1911, an amount of £133,881 was the only direct expenditure by the State on these services.

In view of the transference of the administration of roads and bridges, with the exception of the services previously noted, from direct State to local government control, the following return will be of interest.

As endowments and grants now made by the State Government necessarily cover services other than roads and bridges, all items of local government expenditure are shown, so that a proper comparison may be made between the State expenditure prior to and after the inauguration of local government. It may be stated that there is now an annual loss to the State Government revenue of about £100,000 by remission of the land tax in shire and municipal areas (exclusive of that of the City of Sydney), and the loss of some £7,500 by tolls of punts and ferries, and rents from public watering places.

Service.	Prior to Inauguration of a general system of Local Government.		Transition period.	First Four Full Years in which a general system of Local Government has been in force.			
	1904-5.	1905-6.		1907-8.	1908-9.	1909-10.	1910-11.
	£	£	£	£	£	£	£
Roads	334,819	398,259	336,839	99,992	26,294	24,888	24,372
Bridges	92,724	57,652	57,416	53,050	67,329	60,047	45,104
Punts and Ferries ...	12,531	12,135	7,799	12,643	21,130	24,221	26,761
Public Watering Places ...	13,137	16,949	6,871	9,359	10,064	8,444	10,331
Wharfs and Jetties ...	13,891	16,844	15,182	10,592	14,567	9,827	7,689
Establishment ...	35,033	37,641	31,808	12,965	10,510	9,603	8,570
Other	1,384	1,291	38,010	24,571	7,036	1,175	11,914
Total on Services ...	503,519	540,771	493,925	223,172	156,930	138,205	134,741
Endowments and Grants	7,048	4,944	166,391	252,318	246,294	301,552	325,064
Grand Total ...	510,567	545,715	660,316	475,490	403,224	439,757	459,805

EXPENDITURE BY MUNICIPAL AND SHIRE COUNCILS.

In the subjoined statement, the expenditure in detail by municipal and shire councils on behalf of roads, &c., is presented for the year 1909, which is the latest for which complete information is available:—

City of Sydney—		£
Salaries—Road Maintenance .. ..	...	1,109
Works—Streets—		
Maintenance ... ..	...	21,809
Footpaths ... ..	...	11,752
Woodpaving ... ..	...	3,193
City Improvements ... ..	...	26,331
Gullies ... ..	...	859
Street-lighting ... ..	...	20,444
Street Watering and Sanding ...	...	7,619
Public Service—Traffic Regulation ...	...	7,500
Public Lighting—Electricity Works Fund ...	...	6,771
Total	£	107,387
Municipalities (other than Sydney)—		
Maintenance, Repairs, and Renewals...	...	184,428
Construction ... ..	...	52,213
Street and Gutter Clearing ... ..	...	20,689
Kerbing and Guttering ... ..	...	27,221
Footpaths ... ..	...	29,519
Street-watering ... ..	...	4,884
Street-lighting ... ..	...	63,167
Other, including Tree-planting, &c. ...	...	7,242
Total	£	389,363
Shires—		
Maintenance, Repairs, Renewals, &c....	...	262,338
Construction ... ..	...	217,294
Other Expenditure ... ..	...	1,703
Total	£	481,335
Grand Total	£	978,085

The municipal returns of expenditure on account of bridges show that the annual expenditure for the Pyrmont Bridge, Sydney, was £7,300. In municipalities other than Sydney, an amount of £7,634 was spent; and in the shires the maintenance, repairs, renewals, &c., of bridges was £10,389; whilst £17,188 was spent on construction.

With reference to the lighting of streets, it may be stated that there are in all the municipalities no less than 2,241 miles of streets, the total number of lamps in use being 18,732.

POLICE AND PRISON SERVICES.

STATUTE LAW OF NEW SOUTH WALES.

The statute law of New South Wales relating to legal processes and remedies and prevention of crime is contained principally in the following enactments:—

1897.	Real Property and Conveyancing (Amendment).
Contractors' Debts.	Royal Commissioners' Evidence.
Interpretation.	1902.
Licensing Amendment.	Arrest of Mesne Process.
1898.	Children's Protection.
Accused Persons Evidence.	Dedication by User Limitation.
Bankruptcy.	Fines and Forfeited Recognizances Recovery.
Bills of Sale.	General Legal Procedure.
Conveyancing and Law of Property.	Jury (Amendment).
Coroners'.	Justices.
Distress for Rent Restriction.	Piracy Punishment.
Evidence.	Vagrancy.
Evidence Penalties.	1903.
Legal Practitioners.	Bills of Sale (Amendment).
Liquor.	Commercial Causes.
Statute Law Revision.	Influx of Criminals Prevention.
Wills Probate and Administration.	1904.
1899.	Coroners' Court.
Common Law Procedure.	Infant Protection.
Felons Apprehension.	Justices (Fees).
Justices Fines.	Legal Process Facilitation.
Landlord and Tenant.	Master in Equity (Deputy).
Matrimonial Causes.	1905.
Police Regulation.	Crimes (Amendment).
Prisons.	District Courts (Amendment).
Small Debts Recovery.	Habitual Criminals.
1900.	Jury (Amendment).
Crimes.	Liquor (Amendment).
Inebriates.	Neglected Children and Juvenile Offenders.
Interest on Judgment.	Small Debts Recovery (Amendment).
Justices.	Vagrancy (Amendment).
Oaths.	1906.
Real Property.	Administration Amending.
Sheriff.	Judges' Pensions Amendment.
Supreme Court and Circuit Court.	1907.
Supreme Court Procedure.	Liquor (Amendment).
Witnesses Examination.	1908.
1901.	Police Offences (Amendment).
Conveyancing and Law of Property (Supplemental).	Prisoners Detention.
Coroners (Amendment).	1909.
Defamation.	Defamation (Amendment).
Demise of the Crown.	Inebriates (Amendment).
District Courts.	Justices (Amendment).
Equity.	1910.
Fines and Penalties.	Crimes (Girls' Protection).
Infant Convicts Adoption.	1911.
Interpleader.	Crimes (Girls' Protection) Amendment.
Interstate Debts Recovery.	Criminal Appeal.
Judgment Creditors' Remedies.	
Jury.	
Negotiable Instruments Procedure.	
Parliamentary Evidence.	
Police Offences.	
Prohibition and Mandamus.	

POLICE.

In the maintenance of law and order, and the preservation of life and property, a police force numbering 2,509 men is maintained under the immediate control of an Inspector-General. The following statement shows the distribution of the establishment :—

	Superintendents.	In-spectors.	Sub-In-spectors.	Ser-geants.	Con-stables.	De-tectives.	Track'rs	Total.
General Police	12	9	36	217	2,001	...	62	2,337
Detective „	1	...	2	...	...	22	...	25
Water „ ... ..	...	1	...	4	46	...	...	51
Traffic „	1	1	...	2	86	...	...	90
Weights and Measures ...	...	...	...	1	5	...	...	6
Total... ..	14	11	38	224	2,138	22	62	2,509

In addition to the police recorded above there were five women attached to the metropolitan district as searchers.

Naturally with a steadily increasing population the strength of the police establishment must increase also ; but, as the following statement shows, during the last six years the increases have not been proportionate ; the extension of population has been so much more rapid than the extension of the police force, that the ratio of one policeman per 634 inhabitants, as subsisting during 1905, and approximately for several years previously, has gradually changed, so that for 1910 the ratio was one policeman per 670 inhabitants. The table shows the number of police exclusive of black trackers and female search officers :—

Year.	Metropolitan.	Country.	Total.	Number of In-habitants to each Police Officer.
1905	1,048	1,294	2,342	634
1906	1,035	1,307	2,342	647
1907	1,057	1,324	2,381	652
1908	1,086	1,331	2,417	653
1909	1,090	1,345	2,435	660
1910	1,020	1,427	2,447	670

Adding to the number of police in the metropolitan district those attached to the Police Dépôt, the Traffic, Weights and Measures, and Detective Officers, and allowing for the number included in the Eastern Division, attached to such suburban stations as Parramatta and Granville, &c., the total police protection afforded in the city and suburban area is represented by 1,142 men, being 47 per cent. of the strength of the establishment. For the remaining stations (532) 1,305 police were available, being 2.45 men per station ; and this average represents the mean between the number of police available for the preservation of peace and order in such areas of congestion as Newcastle, and in sparsely populated districts where the stations are far apart, and the police average one man per station.

TRAFFIC BRANCH.

In the metropolitan district the Traffic Police inspect public vehicles, test taximeters, regulate and control the use of motor vehicles upon public streets, besides exercising a general control over all street traffic. In this connection 2,027 accidents were recorded in public streets within the metropolitan area, and 507 persons were taken to hospitals by the Traffic Police. As regards the services of the police in cases of accident, it is of interest to note that out of the total police force of 2,509 men at 31st December, 1910, 318 held St. John Ambulance certificates; and of these, 230 were attached to the metropolitan district.

DUTIES OF THE GENERAL POLICE.

Apart from the preservation of order and the protection of life and property, the general police are charged with a variety of duties, which, though hardly to be counted as usual police work, are allotted to them as the most efficient and economical agents—as in the collection of records and statistics, and the pursuit of investigations and inquiries for various branches of the Public Service. Upon the police devolve the tasks of compiling new electoral rolls and jury lists; of collecting, annually, statistics of pastoral holdings, manufacturing and slaughtering establishments, mills, and private schools. The police also issue timber, fuel, and quarry licenses, miners' rights, business and mineral licenses; and serve as inspectors under the following Acts:—

Liquor Act.
Cattle Slaughtering and Diseased Animals
and Meat Act.
Tobacco Act.
Dairies Supervision Act.
Diseases in Sheep Act.
Alien Immigration Act.
Fisheries Act.

Early Closing Act.
Noxious Trades Act.
Shearers' Accommodation Act.
Pure Foods Act.
Of Slaughter-houses, for Shire Councils.
Magazines and Explosives.
Vineyards.
Weights and Measures, &c.

Further, the police act as clerks of petty sessions, wardens' clerks, mining registrars, gaolers.

APPREHENSIONS.

In the following table are given the total number of persons apprehended by the police, and the proportion per 1,000 of the population at intervals since 1895:—

Year.	Arrests.		Year.	Arrests.	
	Number.	Per 1,000 of Population.		Number.	Per 1,000 of Population.
1895	36,939	29·5	1907	41,842	26·9
1900	37,462	27·7	1908	41,301	26·2
1905	38,172	25·7	1909	40,865	25·4
1906	39,609	26·1	1910	45,914	28·0

The above figures relate to the total number of arrests made by the police in each year irrespective of individuals, and, though the total, representing 883 arrests per week, or 18 arrests per policeman per annum, looks formidable enough, allowance must be made for the fact that 80 per cent. of the arrests are made on counts of infringing the regulations imposed by the demand of

the community for orderliness in public places. Following is a statement showing the classes of offences for which arrests were made during 1910, and the relative importance of each class, as shown by the proportion per cent. of the total, viz. :—

Offences.	Number of Arrests.			Proportion of Total.		
	M.	F.	Total.	M.	F.	Total.
Against the Person	1,608	100	1,708	3·9	2·1	3·7
„ Property	4,576	531	5,107	11·2	10·8	11·1
„ Currency, &c.	103	11	114	·2	·2	·3
„ Good Order	32,702	4,232	36,934	79·8	86·1	80·4
Other offences	2,012	39	2,051	4·9	·8	4·5
Total	41,001	4,913	45,914	100·0	100·0	100·0

Evidently, measured by arrests, the offences of greater magnitude than disorderliness or drunkenness are relatively very few, and point to law-abiding conditions generally subsisting.

In connection with the operations of Magistrates' Courts, the figures relating to cases instituted by summons, as well as by arrest, are given in some detail.

PRISON POPULATION.

There are in New South Wales 30 gaol establishments; of these 6 are principal, 12 minor, and 12 police gaols. The total number of cells in all gaols is 2,278, and, the system of non-association being in force, only one occupant is allowed in each cell.

The number of prisoners in confinement at the close of each year during the last six years will be found below :—

Year	Under sentence.		Awaiting trial.		Total.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.
1905	1,414	155	94	15	1,508	170	1,678
1906	1,281	149	76	13	1,357	162	1,519
1907	1,275	162	47	6	1,322	168	1,490
1908	1,258	159	72	11	1,330	170	1,500
1909	1,196	137	86	11	1,282	148	1,430
1910	1,111	124	79	6	1,190	130	1,320

The prisoners under sentence at the end of the year 1910 are exclusive of inebriates, viz., 42 men and 76 women.

NATIONALITIES AND AGES.

During 1910, 9,849 persons were received into, and 9,959 discharged from, the institutions. Of the persons received 6,410, representing 65 per cent., were Australian-born. The following statement shows the grouping according to ages :—

Age.	No.	Age.	No.
Under 16 years	2	35 and under 40 years ...	1,172
16 and under 21 years ...	933	40 „ 45 „	1,159
21 „ 25 „	1,105	45 „ 50 „	933
25 „ 30 „	1,543	50 and over	1,710
30 „ 35 „	1,258	Unrecorded	34
Total... ..	...	...	9,849

As will be seen by reference to the detail figures showing the operations of Magistrates' Courts, the proportion of cases remanded to higher courts is comparatively small. The majority of offences being charged before the lower courts result in summary convictions for which, during 1910, fines were imposed and paid fully in 63 per cent. of cases; in 22 per cent. of convictions, involving imprisonment only in default of payment, the fine was in most cases paid, in whole or in part, with remission of sentence in proportion. Only in 3·8 per cent. of convictions was imprisonment peremptory, and mainly from such convictions, numbering 2,332 during 1910, was derived the prisons population previously shown.

DECREASING PRISON POPULATION.

The total prison population recorded at the close of 1910, viz., 1,320, represents the lowest level over a period of 35 years, and the following table, showing the relative position of general to prison population, and the gaol entries at intervals since 1875, proves that while the strength of the general population has been trebled practically, the prison population as between 1875 and 1910 has decreased by nearly 10 per cent, viz. :—

Year	General Population at December.	Gaol Entries during Year.	Gaol Population at December.	Ratio of Gaol per 10,000 of General Population.
1875	594,297	11,832	1,453	2·44
1885	949,570	20,740	2,562	2·70
1895	1,262,270	18,552	2,460	1·95
1905	1,496,007	13,380	1,678	1·12
1910	1,639,722	9,849	1,320*	·81

* Exclusive of inebriates detained.

CAUSATION IN IMPROVED CONDITIONS.

To attempt to ascribe precise reasons for the absolute decrease of the prison population is futile. Undoubtedly external influences, such as the extension of educational facilities, which tend to mould the law-abiding instincts of a community, and the continuance of fairly prosperous conditions in industry generally, have been potent factors in restricting the inclination to infringe upon the social code, and, particularly, in reducing the number of occasional offenders upon whom, as a class, social and economic conditions react most promptly.

Relaxation in administration of the law as it stands might readily result in a nominal decrease in detected crime, but it is to be remembered that such decreases as are shown have resulted in spite of a thoroughly consistent administrative policy, and side by side with the promulgation of new laws which impose higher standards of life, and necessarily extend the area of opportunity for offence.

LEGISLATIVE PROGRESS.

A survey of the list of statutes bearing upon matters of law and orderliness shows that the years that were richest numerically in the production of specific enactments were from 1898 to 1902; but this period covers the interval when consolidation of existing enactments as at 1896 was being affected; in more recent years, from 1903 to the present date, the original enactments numbered ten and amendments numbered eleven. Included in the original enactments of the later period, however, are several which mark radical alterations of policy, e.g., the Influx of Criminals Prevention Act, 1903; Habitual Criminals Act, 1905; Prisoners Detention Act, 1908; Crimes (Girls' Protection) Acts, 1910 and 1911; and the Criminal Appeal Act, 1911. Detailed reference is made later to the operation of these Acts.

INSTITUTIONAL TREATMENT.

Grading of Establishments.

The establishments maintained are graded to permit of concentration of prison population in institutions large enough to ensure efficiency of supervision conjoined with economy of administration, and the maintenance of a strict and disciplinary organisation which will yet conduce to the highest ideals of reform.

In the records of the past 10 years the process of concentration is evidenced in the fairly continuous reduction in the number of gaol establishments from 59 in 1901 to 30 in 1911, as noted previously. The establishments closed included 2 principal, 3 minor, and 27 police gaols; of the police gaols 3 were opened subsequent to 1901.

The central establishment at Darlinghurst is reserved as a clearing-house, and also as a hospital for persons requiring medical care. From the Darlinghurst centre long-sentence prisoners are distributed to the larger country establishments, which are reserved for men in their special classes, viz., Goulburn for first offenders; Bathurst for men previously convicted but deemed amenable to reformatory influences; Parramatta for more confirmed or habitual criminals; and Grafton for special cases. Maitland Gaol is reserved for men from the Northern District, with sentences not exceeding six months, and other and smaller establishments, as at Armidale, Young, Tamworth, Albury, &c., are used for short-sentence prisoners in the particular districts, while at the police gaols and lock-ups are detained only prisoners with sentences of less than fourteen days.

Classification and Segregation.

In all the large establishments an interclassification system is operative, which assures the segregation of the inmates in various classes as to age and conduct, and transfers are effected when necessary from class to class, or from one establishment to another.

The various classes are distinguished as follows :—

1. Sentences of penal servitude, or of over two years, with hard labour.
2. Sentences of less than two years, with hard labour, for felony or misdemeanour.
3. Sentences of imprisonment or indeterminate sentences.
4. Persons awaiting trial or under examination.
5. Mental defectives.
6. Debtors.
7. Youthful offenders, *i.e.*, men and youths under age 25, with sentences of less than twelve months.

Restricted Association.

Prisoners under classes 1 and 2 are further subjected to divisional treatment, *i.e.*, they earn their right by exemplary conduct to promotion till placed in associated labour, but otherwise kept in separate cells, and thence to the probationary division, when they benefit by various privileges preparatory to release.

For several years the principle of restricted association has been enforced, and has yielded results which demonstrate the unsoundness of the older principle of classification in groups according to length of service merely. Under present conditions association while at work, at exercise, and at religious instruction, is subject to the closest supervision; cells are lighted, and literature is made available from the prison libraries, which, at December, 1910, included 23,264 volumes.

The enforcement of this system of isolation has involved heavy monetary expenditures which have been more than counterbalanced, however, by the advantages accruing from the policy of concentration quite apart from the moral benefit ensuing to the prisoners. Separate confinement is practically abolished, the maximum period enforceable being four weeks.

BREACHES OF PRISON REGULATIONS.

Breaches of prison regulations are rare, the punishments imposed for such infractions of discipline affecting only 1·6 per cent. of the total number of prisoners received into the gaols during the year 1910. A Visiting Justice is appointed under the Prisons Act, 1899, to visit each prison at least once in every week. Judges of the Supreme Court may at any time visit and examine any prison, and similar power to examine is given to all Justices of the Peace. The Visiting Justice is empowered to hear and determine all complaints made against a prisoner for disobeying the rules of the gaol, or for having committed any offence, and to pass sentence of solitary confinement for a term not exceeding seven days. In case of persistent insubordination, a charge upheld before two or more Justices of the Peace involves liability to close confinement for one month; in the case of a prisoner convicted of felony, or serving a sentence of hard labour, punishment may involve personal correction. Drastic forms of punishment, such as long terms of solitary confinement, have been replaced by a policy of deprivation of privileges, and experience shows that the latter method is effective.

IDEALS OF THE SYSTEM.

The aim of the whole prison system of the State is so to educate and remould the habits of offenders as to enable them to earn their right to freedom, and to use it advantageously to themselves and to the community. The idea of imprisonment as punitive or retributive is no longer entertained, but it is taken as axiomatic that the committal of crime demonstrates unfitness to be at liberty and to compete with normal individuals in the struggle for existence; and while not yet attempting to distinguish and eliminate the causes, hereditary or acquired, which tend to manufacture criminals, the effort is made to segregate the undesirables till such time as they have acquired and evinced more normal characteristics. To this end sentences of sufficient length are desirable, and in cases of declared habitual criminals are assured.

IMPRISONMENT IN LIEU OF FINE.

Under the Justices Act, 1902, imprisonment for non-payment of an amount adjudged to be paid on order of a Justice may be curtailed by payment of a portion of the fine, for which a proportionate part of the sentence may be remitted, and under the Crimes Act, 1900, and its amendment of 1905, provision is made for the payment of fines in instalments. The following table shows the extent to which diminution in the term of confinement was commuted by money payment during the past five years:—

	1906.	1907.	1908.	1909.	1910.
Persons committed to gaol in default of payment of fines	6,853	6,635	7,158	6,471	5,027
Prisoners subsequently released after paying portion of fines	1,327	1,510	1,538	1,435	1,385
Days prisoners would have served if portion of fines had not been paid ...	33,794	42,507	46,665	42,760	45,573
Days remitted by part-payment of fines ..	14,100	28,379	29,147	29,773	32,823
Amount received at gaol as part-payment of fines	£2,387	£2,766	£3,193	£2,924	£2,881

IMPRISONMENT FOR DEBT.

Included in the prison population previously quoted as at De-cember, 1910, was one debtor. During 1910, 35 men were imprisoned for debt, but the time of detention, as a rule, extended over a short period, and the number of debtors in confinement at any given time is not large. The number of persons sent to gaol for debt during each of the last ten years is given in the following table :—

Year.	Males.	Females.	Total.	Year.	Males.	Females.	Total.
1901	49	2	51	1906	57	14	71
1902	57	1	58	1907	42	4	46
1903	53	6	59	1908	43	3	46
1904	62	7	69	1909	40	5	45
1905	63	12	75	1910	35	...	35

SPECIAL TREATMENT.

First Offenders.

In case of any person not previously convicted of an indictable offence being convicted for a minor offence and sentenced, the Court may, under the provisions of the Crimes Act, suspend the sentence upon a recognizance, without sureties, for good behaviour during the period covered by the sentence, the probationary term being, however, not less than one year. An examination is made for purposes of identification, and the offender is required to report himself periodically. Failing satisfactory conduct, the offender becomes liable to imprisonment for the unexpired portion of the sentence; but good behaviour during the whole probationary period cancels the conviction. During 1910, 354 persons, viz., 262 at Magistrates', and 92 at Higher Courts, were released as first offenders. Of the total, 91 were women, and 263 men. These figures do not include 680 children released on probation from the Children's Court, under the Neglected Children and Juvenile Offenders' Act, 1905.

The records of prisoners convicted at Gaol deliveries and Courts of Quarter Sessions, show that out of 550 persons convicted, 268 had not been convicted previously.

YOUTHFUL OFFENDERS.

Under the Borstal system, as applied in England, the ages between 16 and 21, or in certain cases 23 years, are regarded as essentially the critical years during which temptation is hardest to resist, and during which also young offenders may reap most benefit from disciplinary and moral influences and industrial training. In New South Wales, the upward limit is set at age 25, and a strict line of demarcation is drawn between offenders over and under that age. Offenders under age 25 are classified in age groups, and also according to length of sentence over or under 12 months, and divisional treatment is accorded. Special scholastic, industrial, religious, disciplinary, and physical training courses are enforced, for which latter, facilities in the form of workshops are available. Particularly is it found that healthy outdoor agricultural work supplies an effective means of ensuring profitable employment when the offenders are released conditionally. Great discrimination and special care are necessary to prevent such youthful offenders from becoming confirmed criminals.

In Victoria a somewhat similar system of treatment is accorded to youthful offenders; but it is compulsory, upon those who can neither read nor write, or who have not attained a certain standard, to attend school twice daily.

In the school work juveniles serving for first convictions are carefully separated from youthful offenders with previous convictions. The following statement shows enrolment and attendance at the educational classes:—

Gaol.	Enrolment.	Average weekly Attendance.	Eligible for Instruction.
Darlinghurst	224	18	206
Parramatta... ..	78	17	89
Bathurst	80	16	80
Goulburn	78	19	69
Total	460	...	444

Of the total number eligible for instruction (444), 51 were quite illiterate and 141 were mere beginners, *i.e.*, 192 were practically uneducated, being 43 per cent. of the total eligible who are drawn mainly from the seventh class offenders, *i.e.*, those under age 25.

WOMEN IN PRISONS.

Prior to 1909 the principal establishment for women at Biloela lacked adequate accommodation to permit of systematic classification and segregation of the prisoners, so rendering reformatory measures hopeless. In August, 1909, a specially designed and fully equipped establishment was opened, *viz.*, the State Reformatory at Long Bay, and to this central institution are sent all long and short sentence prisoners from the metropolitan district, and all long-sentence prisoners from extra-metropolitan districts. Short-sentence prisoners from such districts are detained at the largest local establishment. At Long Bay an exhaustive system of classification is in force. Accommodation is provided by 276 separate rooms, comprised in four halls, of which one is reserved for inebriates. In addition there are workrooms, dining and reception rooms, and a special hospital. Each inmate occupies a separate room when not engaged in the workrooms. Exercise takes the form of physical drill, in separate divisions, and a special tram-car conveys the women into and from the institution. During 1910, 1,220 women were received and 1,230 discharged from the institution, the number remaining at end of the year being 102. Rather more than 50 per cent. of the women received were committed on sentences of less than 14 days, and consequently present little opportunity for the application of reformatory measures. The industrial activity of the institution resulted in an output of manufactures, for which the inmates earned £647; adding the value of gardening and domestic services the total amount earned during the year was £2,246.

The following table shows the daily average number of women detained in all gaols since 1905:—

Year.	Daily Average.	Year.	Daily Average.
1905	189	1908	162
1906	168	1909	175
1907	164	1910	150

During 1910 the daily average at the State Reformatory was 113, and 35 prisoners were punished for breaches of the regulations of the establishment.

Shaftesbury Institution, at South Head, is also reserved for women, but being mainly concerned with inebriates in the later stages of their detention, is discussed in that connection.

HABITUAL CRIMINALS AND PREVENTIVE DETENTION.

The Habitual Criminals Act, 1905, empowers a judge to declare as an habitual criminal any person already convicted on three, or in certain cases, two occasions, either within or without the State, of offences similar to the

offence then charged. A definite sentence is imposed and served on account of the offence charged, and subsequently the offender is detained for an indefinite term, until he is deemed to have demonstrated his fitness for freedom. Provision is made for a Consultation Committee of visiting officers, and the governor of the prison, to which committee each case is to be reported regularly.

During 1910, one man and one woman were declared to be habitual criminals, making a total of 42 men and 1 woman so declared since the inception of the Act. The definite sentences imposed have ranged from 6 months to 14 years, but the majority were for 5 years (21), and 3 years (7). During the period between 1906 and 1910 there were four deaths, and the discharges included, one removed to a hospital for insane, and two released on account of technical flaws in the declaration determining their detention.

At the end of 1910 there were 36 persons detained, of whom nine were undergoing the second or indeterminate portion of the sentence, and none had been classed in the special grade preparatory to release. Any person released after completion of service will be required to report periodically for two years.

This system of treatment acts as a deterrent to the existence of professional criminals, and moreover confers an incalculable benefit to society directly, and also indirectly, by removing the force of examples of criminality, so much so that other communities have realised the benefits accruing from the system and adopted it as initiated in this State.

In New Zealand the Habitual Criminals and Offenders Act, 1906, empowers a judge to order the detention of declared habitual criminals; in South Australia, the Habitual Criminals Amendment Act, 1907, follows closely on the lines of the New South Wales Act; and somewhat similar provisions are contained in the Tasmanian Habitual Criminals and Offenders Act, 1907. In Victoria, the Indeterminate Sentences Act, 1908, provides for the adoption of the indeterminate sentence for habitual criminals, and also for certain other classes of offenders. The probation system was made applicable to adults as well as minors, and a special board was appointed to supervise the operations of the law. It is recognised that the Australian States now show the most advanced legislation in regard to reformatory detention, and it may therefore be of interest to quote the gist of resolutions passed by the International Prison Congress held at Washington, in the United States of America, in 1910, viz., that—

“Congress approves of the principle of indeterminate sentences, which should be applied to moral and mental defectives, and also, as an important part of the reformatory system, to criminals (particularly juvenile offenders), who require reformation, and whose offences are due chiefly to the circumstances of the individual.”

The introduction of the system was recommended, subject to the following suppositions, viz., that—

“The prevailing conceptions of guilt and punishment are compatible with the principle of indeterminate sentences; that individual treatment of the offender be assured, and that the Board of Control of conditional release be constituted to exclude all external influence, being a commission of at least one representative each of the prison administration, the magistracy, and medical science.”

The Congress further resolved that the reformatory system is incompatible with short sentences, and a relatively long period of reformatory treatment is more likely to be beneficial than repeated short terms of imprisonment under severer conditions.

As to general principles, various resolutions were passed confirming the dual bases of every prison system—protection of the community and correction of the offender.

DRUNKENNESS.

During 1910, the convictions for drunkenness with and without disorderly conduct numbered 27,380. The following table shows the total convictions during each of the last ten years, and their relation to the mean population :—

Year.	Convictions.			Per 1,000 of Population.		
	Males.	Females.	Total.	Males.	Females.	Total.
1901	19,569	4,234	23,803	27.30	6.51	17.47
1902	19,543	4,789	24,332	26.83	7.22	17.48
1903	19,788	4,810	24,598	26.77	7.13	17.39
1904	18,116	4,827	22,943	24.03	7.04	15.95
1905	18,996	5,007	24,003	24.70	7.17	16.35
1906	20,589	4,664	25,253	26.16	6.53	16.83
1907	23,573	4,536	28,109	29.21	6.21	18.28
1908	23,730	4,087	27,817	28.92	5.48	17.75
1909	23,616	3,747	27,363	28.42	4.92	17.19
1910	24,450	2,930	27,380	28.92	3.77	16.88

The figures quoted in the foregoing table refer to total cases, not to distinct individuals. The slight decrease evident in the proportion of total convictions per 1,000 of population as between 1901 and 1910 is fairly satisfactory; but comparison of the rates over the ten years for men and women reveals a decided increase in the proportion of convictions against men, which is only set off by an enormous decrease in the proportion of convictions of women, viz. :—

Year.	Convictions per 1,000 of Population.		
	Males.	Females.	Total.
1901	27.30	6.51	17.47
1910	28.92	3.77	16.88

Grouping the number of convictions in five-year periods, the steady decline on the one hand, and the rapid increase on the other, become even more noticeable, viz. :—

Year.	Number of Convictions.		
	Males.	Females.	Total.
1901-1905	96,012	23,667	119,679
1906-1910	115,958	19,964	135,922

Taking the totals in the first quinquennium as representing 100 in each instance, the comparison shows as follows :—

	Males.	Females.	Total.
1906-1910	121	84	114

It is worthy of note that this second quinquennium corresponds with the period during which the Liquor Amendment Act, 1905, has been operative, its enactment being practically coincident with the commencement of the decline in the number of convictions of women, as is evident from the figures quoted above.

THE TREATMENT OF INEBRIATES.

In New South Wales three State institutions are devoted to the treatment of inebriates, viz., at Long Bay, Darlinghurst, and South Head, and the system obtaining is effective in supplying medical attention and care to chronic drunkards, who have become mentally and physically enfeebled. As in other countries, *e.g.*, in England, the maintenance of establishments in the nature of asylums is essential to effect the humane detention of persons who are otherwise disturbances to society, and careless of their own interests. The number of such persons who can be benefited permanently is very small, however, and the best safeguard lies in preventive rather than reformatory measures. With this object in view stringent clauses regarding the sale of liquor at licensed premises are contained in the Liquor (Amendment) Act, 1905. Except in cases of sickness or accident, no person under the age of 18 years may be supplied with liquor, and persons under 17 years of age are not allowed in the bar of an hotel; girls under 21 years, except in the case of a wife and daughter of a publican, are not permitted to serve liquor. Hotels must be closed during the time of voting for a Parliamentary election and on Sunday, though liquor may be sold to *bond fide* travellers, lodgers, servants, or inmates; provided that in the case of a traveller the place where he lodged on the previous night is at least 20 miles distant, if in the county of Cumberland, or at least 10 miles if in the country districts; a publican is not compelled to sell to a traveller.

Examination of the records of the State over a period of years discloses the fact that practically half of the persons who constitute the gaol population at any given date have commenced a career of criminality on a conviction to imprisonment on a charge of drunkenness; further, cases frequently recur of individuals whose record shows many previous convictions, and for such offenders the short sentence or the imposition of a fine is quite useless as a deterrent.

To meet such cases the Inebriates Acts of 1900 and 1909 provide for special treatment. Any person convicted of drunkenness on three occasions within a year may be detained for periods ranging up to twelve months, and liable to a more or less indefinite extension, which may be covered by release upon license in cases which promise satisfactory conduct.

At the present time reformatory treatment of inebriate men is hampered by lack of adequate accommodation in the portion of Darlinghurst Gaol reserved for them. Inebriate women are detained at the State Reformatory, and subsequently, in cases showing marked improvement, at the Shaftesbury Institution.

The following statement shows the number of admissions to and departures from, the three institutions of inebriates during 1910, viz. :—

	Darlinghurst.		Long Bay.	Shaftesbury.	Total.		
	M.	F.	F.	F.	M.	F.	Total.
Received from Courts	45	...	80	...	45	80	125
Discharged after detention ... ..	...	...	2	...	...	2	2
" before completion of detention.	2	1	...	...	2	1	3
" on medical grounds	2	2	3	...	2	5	7
" on license... ..	10	1	5	23	10	29	39
Detained end of year	42	...	62	14	42	76	118

From 1908 to 1910, 35 persons have been released on license from Shaftesbury Institution, and of the number 5 licenses have been revoked, and 6 of the licensees being old or infirm have been sent to asylums. Of the persons released during 1910 from all institutions, 15 were sent to domestic

service, 3 to gardening or labouring work, 4 to other more or less skilled work, and 9 to asylums.

Of 125 persons admitted to the institutions, 75 of them were Australian born, 60 of them being natives of New South Wales, and of the remainder 42 were British born. The minimum period of detention was six months, the range being—in 1 case, 6 months; 115 cases, 12 months; 2 cases, 2 years; 7 cases, over 2 years.

The previous convictions of 1910 admissions ranged from 2 upwards; 9 had from 2 to 5 convictions; and beyond that the cases showed as follows:—

Convictions.	Cases.	Convictions.	Cases.
6-10	18	41-50	12
11-20	17	51-100	23
21-30	12	Over 100	14
31-40	20		

The frequency of convictions in these cases amply demonstrates the necessity for a protracted sentence and the desirableness of extending the usual 12 months sentence to 3 years.

The majority of persons admitted during 1910 were over 40 years of age, viz.:—

21-25 years 2; 25-30 years 6; 30-35 years 18; 35-40 years 20; 40 years and over, 79.

Of 45 men admitted 21 were labourers, dealers, &c., i.e. unskilled, 6 were seamen and 18 were skilled or professional workers.

The total expenditure on inebriate institutions during 1910 amounted to £3,315, the greater portion of which was absorbed in administration.

THE CURE OF INEBRIACY.

During 1910 investigations were made on behalf of the South Australian Government regarding inebriate institutions in America, and the various cures in vogue. Concerning many of the so-called cures, the report was unsatisfactory, the percentage of assured successes being small, and the treatment involving hypodermic injections. The Honorary Commissioner reported favorably however, upon two somewhat analogous systems, which have achieved a large measure of success, the basis of treatment being the neutralisation and elimination of alcoholic poisoning by a vegetable derivative which works rapidly in clearing toxins from the system, and effectively operates as an antidote.

INDUSTRIAL ACTIVITY IN PRISON ESTABLISHMENTS.

Ability to perform useful and remunerative labour is recognised as of equal importance with good conduct in demonstrating fitness for freedom, and to encourage some degree of skill, employment at industries calculated to inspire interest, and subsequently to prove remunerative, is provided and is supervised by competent instructors.

During 1910 the workshops removed from Darlinghurst were concentrated at Parramatta, which is now the principal industrial gaol, though work under instructional control is performed also at Bathurst, Goulburn, and Long Bay.

The gross value of articles manufactured during 1910 amounted £20,461, including the value of articles manufactured for Government Departments, and for use within prison establishments. On alterations and repairs within the institutions, at average rates, the work done was valued at £4,009; in domestic service the labour value for the year was £11,403.

The majority of persons who offend against the social code have no trade, but where it is practicable, each person is kept at his particular trade. The big proportion of general workers among the prison population demonstrates this preponderance of unskilled labour, for it must be remembered that among the persons listed as working at skilled trades or at manufacturing are many whose knowledge has been acquired only during detention.

Agriculture and Outdoor Work.

Where land is available, considerable attention is given to agriculture, and especially are offenders (under age 25) detailed for agricultural work, which from its nature is recognised as particularly conducive to physical and moral improvement. The principal establishments at which agricultural work is carried on are Bathurst, Goulburn, Grafton, and Parramatta gaols and the State Reformatory.

Tree Planting.

During 1911 investigation was made into the system of tree planting by prison labour as carried on in New Zealand, where afforestation on large sections of barren country, especially hill slopes in the thermal districts, gives promise of being a profitable source of revenue in the future. The work is carried on mainly by labour of prisoners and ex-prisoners. The prisoners engaged in this work number about 80, representing some 10 per cent. of the total prison population, and are all first offenders with light sentences. They are worked in groups of four and have the privilege of special liberties, *e.g.* the use of a good library while off duty. The camps are fairly permanent and well laid-out, each man has his own hut, and a large central building serves as dining and recreation hall, &c. The present rate of planting is expected to yield in 20 years some 4,500,000 poles per annum, mainly larch, to be used for railway sleepers, mining timber, and fencing material.

The men engaged in the plantation work are also trained to fight forest fires; and both morally and physically improvement is noted in the individuals, while the gain to the community is obviously double-edged. The efficiency of the system as demonstrated has led to its inauguration in New South Wales, but so recently that details in regard to its operation are not yet available.

UNEMPLOYED IN PRISON ESTABLISHMENTS.

In the various establishments there must necessarily be a certain proportion of inmates who are incapable of being employed. At the end of 1910 such persons included the following :—

In hospital, 25; under medical treatment, 13; incapable, 15; in cells, 4; exempted, 3; recently received, 86.

The unemployed represented only 11 per cent. of the total prison population.

MORBIDITY AND MORTALITY IN GAOLS.

Visiting surgeons are attached to the various important establishments of which the sanitation and hygiene are on modern lines. Naturally among the persons received into the institutions are included many whose physical condition is deplorable, and more especially in the country districts, persons in the last stages of disease, and aged and infirm paupers, for whom a hospital or asylum is the befitting destination. Within the institutions healthful cleanly habits are inculcated, and there occur few instances of disease originating after reception; on the other hand, there arise cases in

which disease, apparently originated prior to committal, has grown so serious as to compel the release of the prisoner. The following statement shows particulars regarding the releases made on medical grounds during 1910:—

Mental disease and imbecility, 12; senile decay, 3; cancer, 1; tuberculous glands, 1; phthisis, 1; other, 2.

In practically every case the disease was reported to have originated before reception into prison.

The general medical statistics of prisons show that with an average daily number of 1,364 inmates, the total number of cases of sickness treated in hospital, irrespective of minor ailments treated outside hospital, was 525, of which 380 were treated at Darlinghurst.

Particulars in regard to the duration of illness are not available, but details regarding the deaths resulting show 3 from heart disease, and 1 from apoplexy. In addition to these deaths there were 3 from suicide, and, as previously noted, 20 persons were released from gaol being in an advanced stage of disease.

In the following table the number of deaths in gaols, exclusive of those resulting from executions, is given for 1890 and subsequent periods, together with the death-rate per 1,000 of the average number of prisoners in confinement during the year:—

Year.	Deaths.			Death-rate per 1,000 persons in confinement.
	Males.	Females.	Total.	
1890	24	2	26	11·50
1895	19	3	22	8·83
1900	15	3	18	9·02
1905	12	1	13	6·98
1906	5	3	8	4·90
1907	9	1	10	6·48
1908	14	1	15	10·27
1909	6	3	9	6·11
1910	6	...	6	4·39

Criticism of the system of treatment in large gaol hospitals tends to condemn the system under which all classes of prisoners, except, of course, those suffering from contagious diseases, are associated in the general portion of the hospital.

During the three years 1907–1910, there have been no executions in gaols.

INSANITY IN GAOLS.

During 1910, 59 cases of insanity, viz., 13 of women and 46 of men, were diagnosed among the gaol inmates, of which number 30 showed symptoms on reception and 15 developed them within one month of admission. There were also 52 prisoners sent to observation wards, and 156 persons received for protection or on charges of mental defectiveness. Of the cases diagnosed, 4 recovered in gaol, 8 were certified for removal to a hospital for insane; in 12 cases the sentences expired, in 8 remission was granted, and in 20 remand cases the prisoners were discharged to the police.

In 8 cases the mental condition on reception was diagnosed as sane; in 12 as apparently sane, and in these cases the longest period before disclosure of symptoms of insanity were respectively 6 years 10 months, 2½ years, 2 years 2 months, and 2 years 15 days.

The charges upon which the diagnosed cases of insanity were brought before the courts may be grouped as follows :—

	Males.	Females.	Total.
Vagrancy, disorderliness, &c. ...	11	10	21
Stealing ...	10	...	10
Attempted suicide... ..	1	2	3
Murder ...	3	1	4
Assault and wounding ...	6	...	6
Damaging property ...	2	...	2
Forgery ...	1	...	1
Wife desertion ...	1	...	1
Other ...	11	...	11
Total ...	46	13	59

VAGRANCY.

The big proportion of vagrancy and similar charges in the statement shown above is most noticeable, and in addition to these cases of insanity there were 28 convictions on charges under the Vagrancy Act, the ages of convicted persons showing as follows :—

Age.	Males.	Females.	Total.	Age.	Males.	Females.	Total.
16-20	...	5	5	56-60	1	1	2
21-25	2	3	5	61-65	1	...	1
26-30	3	...	3	71-75	2	...	2
36-40	1	1	2	76-80	2	...	2
41-45	2	...	2				
46-50	2	1	3				
51-55	1	...	1	Total ...	17	11	28

It is necessary to emphasise the bearing of the age incidence in these cases, as out of the total of 28, 13 cases were under age 30, and 7 were over age 55, the years between 30 and 55 being responsible only for a comparatively small percentage of the total cases. The inference from the cases of the early and later years is incapacity or constitutional defectiveness, and the primary essential to success in dealing with such cases is an indeterminate sentence to permit of a period of detention sufficiently long to assure medical treatment and disciplinary training. Of the 28 vagrancy cases quoted, all but three were remanded to a hospital or charitable asylum, failing suitable accommodation for satisfactory and systematic treatment within the prison establishments.

CONTAGIOUS DISEASES.

Under the Prisoners Detention Act, 1908, prisoners found to be suffering from certain contagious diseases may be detained in Lock Hospitals, for periods concurrent with, or in some cases, in excess of the imprisonment imposed. The following statement shows the extent of operations in connection with the objective of the enactment, viz. :—

	1909.				1910.			
	Treated.		Discharged.		Treated.		Discharged.	
	M.	F.	M.	F.	M.	F.	M.	F.
Persons under orders...	43	27	36	22	48	14	44	13
„ eligible for orders ...	35	11	30	8	28	4	17	2
„ not eligible under the Act ...	54	21	3	2	60	2	9	1

Of the cases not amenable to the provisions of the Act, a total of 112 were discharged while still not free from contagion, viz., 92 men and 20 women, and the obstacle to their detention is found in the fact that orders can be obtained only when direct imprisonment is imposed, thus excepting offences for which fines are imposed.

TERMS OF SENTENCES.

The following statement shows the number of persons received into penal establishments during the years 1909 and 1910 for sentences of the duration specified :—

Term of Sentence.	Persons Admitted.					
	1909.			1910.		
	Male.	Female.	Total.	Male.	Female.	Total.
	No.	No.	No.	No.	No.	No.
Under 1 month	4,602	1,777	6,379	3,957	1,075	5,032
From 1 to 3 months	1,283	278	1,561	1,213	263	1,476
" 3 to 6 "	513	68	581	510	84	594
" 6 to 12 "	260	12	272	190	13	203
" 1 to 2 years	124	7	131	124	8	132
" 2 to 3 "	43	2	45	43	2	45
" 3 to 5 "	35	...	35	32	...	32
" 5 years and over	12	...	12	16	1	17
Unspecified	186	8	194	169	3	172
Total	7,058	2,152	9,210	6,254	1,449	7,703

Cumulative sentences have been taken as summed and concurrent as equal to the longest sentence. It is noticeable that nearly 70 per cent. of sentences are for periods not exceeding one month; and taking sentences of one year or less practically 96 per cent. are included of the total number of persons admitted. It is apparent therefore that the system of repeatedly imposing short sentences offers no opportunity for the successful application of reformatory influences. Further short-sentence prisoners are most frequently in need of medical treatment, and a limited period of detention moreover prohibits remunerative returns from their industrial employment within the institutions.

Naturally in a community where employment is so readily obtainable the economic temptation to criminal action is exceedingly slight, consequently the majority of offenders must be classed as victims of the parasitic instinct, or other forms of disease for which there is no apparent remedy except the segregation of the unfit. In this connection reference may be made to Part Social Condition of this Year Book, detailing the business of the Medical Congress held in Sydney in 1911.

LICENSING OF PRISONERS.

Some satisfactory results are derived from the system of licensing in lieu of absolutely discharging prisoners, but difficulty is experienced in compelling the license holders to comply with the conditions of the license. During 1910, 552 persons were discharged from all prisons on license, viz. :—

	Males.	Females.	Total.
Under Section 463, Crimes Act	37	3	40
" Prison Regulation 75	460	52	512
Total	497	55	552

Licenses when issued operate for the unexpired portion of the sentence ; sureties are required. The licensee is required to report periodically, and for any breach of conditions is liable to cancellation of license, and to recommitment to gaol for the balance of the sentence.

Of the licenses issued under the Crimes Act, 33 were in force at the end of 1910, viz., 28 for men and 5 for women.

RECONVICTIONS.

A substantial decrease has been effected during the past ten years in the number of offenders committed to prison on first conviction, but the proportion of the "previously convicted" has increased. Related to the general decrease in the prison population, and bearing in mind that the proportion of prisoners with six convictions and upwards is higher than of those with one or two prior convictions—it seems that the manufacture of criminals is not developing proportionally to the increase in the general population, but that the majority of offenders belong to the incorrigible class.

FUGITIVES AND EXTRADITION.

The Imperial statutes in force in New South Wales for the surrender of fugitive criminals are the Fugitive Offenders Act, 1881, and the Extradition Acts, 1870 to 1895. The Influx of Criminals Prevention Act was enacted by the State Legislature in 1903.

Under the Fugitive Offenders Act, 1881, provision is made for the surrender from the United Kingdom to a British possession or *vice versa*, or from one British possession to another, of fugitives charged with the perpetration of crimes which, in the part of His Majesty's dominions where they are committed, are punishable by a minimum penalty of imprisonment with hard labour for twelve months. Persons apprehended under this Act are brought before a Magistrates' Court, and their cases are included in the figures relating to the business transacted at such courts, and not in the returns relating to the Extradition Court.

During 1910, 40 persons—39 men and 1 woman—were arrested in other countries as fugitive offenders, and returned to New South Wales. Of these 20 were discharged, 3 were summarily convicted before magistrates, 15, including the woman, were committed to higher courts, and 2 were remanded. The Extradition Acts provide for the surrender to foreign States of persons accused or convicted of committing crimes within the jurisdiction of such States, and for the trial of criminals surrendered to British dominions. Treaties for the extradition of fugitives subsist between the United Kingdom and the majority of foreign countries. In proceedings taken in New South Wales under the Extradition Acts the fugitive may be brought before a Stipendiary or Police or Special Magistrate, who hears evidence on oath, and, if satisfied makes out a warrant for the extradition. At the hearing, the Consul for the country of which the person charged is a subject, the Crown Solicitor, and the Inspector-General of Police are represented. If a warrant be granted, the prisoner is detained for fifteen days prior to extradition, during which interval he may apply to the Supreme Court for a writ of *habeas corpus*. There were no extraditions during the year 1910.

The number of persons arrested in New South Wales during 1910 as fugitives was 33, of whom 5 were discharged, 23 were remanded to other States of the Commonwealth, and 5 to New Zealand. In terms of the Influx of Criminals Prevention Act, 1903, persons convicted in other States are guilty of an offence against the Act if they come into New South Wales before the lapse of three years from the termination of their imprisonment. Penalties are imposable upon all persons accessory to the importation of criminals, and the offenders themselves are liable to deportation or other punishment.

AUXILIARY AGENCIES.

The advantage of a morally and physically improved condition, resulting from the discipline and training imposed upon prison inmates is fostered by the efforts of such agencies as the Prisoner's Aid Association, in assisting released persons to find suitable employment, in acting as trustees of gratuities and moneys earned while in prison, and in tendering material help to first offenders, licensees, and others. The work of the Association during the nine years of its existence has been so effective that only about eleven per cent. of the persons assisted have been reconvicted.

During 1910 the Association assisted 284 discharged prisoners with food, money, clothing, or lodging, or in 174 cases by securing employment, and the reconvictions of those assisted numbered only fifteen. Formal applications for assistance numbered 449, of which only 20 were refused.

The work of the Association in assisting first offenders with advice or help in obtaining sureties covered 4,340 interviews during 1910; in 733 cases moneys for payment of fines were collected, and in 214 cases bail was procured. The disbursements of trust funds, viz., earnings and gratuities, amounted to £550 during the year. Successful operation of the system of licensing prisoners is to a very great extent dependent on the work of the Association and similar bodies.

The social operations of the Salvation Army organisation include the delegation of special officers for police court duty, and the work performed by such officers covers every possible form of assistance. Precise details as to the operations within New South Wales are not readily available.

Upon external agencies depend the provision of lectures, entertainments, &c., at the various institutions, but religious and educational work as already noted are functions of the system.

COST OF POLICE AND PRISON SERVICES.

The following table shows the amount expended in maintaining the police and prison services of New South Wales since 1905, also the amount of fines paid into the Consolidated Revenue, and the net return from prison labour:—

Expenditure and Revenue.	1905.	1906.	1907.	1908.	1909.	1910.
Expenditure—	£	£	£	£	£	£
Police	434,684*	427,285*	443,172*	446,747*	449,718*	479,216*
Penal establishments ...	100,947	98,893	98,440	101,668	120,242	107,608
Total	535,631	526,178	541,612	548,415	569,960	586,824
Revenue—						
Fines	16,636	17,908	19,042	19,414	21,578	23,813
Net return from prison labour	22,508	22,242	23,819	24,664	24,673	24,470
Total	39,144	40,150	42,861	44,078	46,251	48,283
Net Expenditure	496,487	486,028	498,751	504,337	523,709	538,541
Per Head of Mean Population	s. d. 6 9	s. d. 6 6	s. d. 6 6	s. d. 6 5	s. d. 6 7	s. d. 6 8

* Financial year ending subsequent 30th June.

LAW COURTS.

The legal processes within the State may be grouped as coming within the original jurisdiction of the Lower or Magistrates' Courts, or the Higher Courts presided over by appointed Judges. In regard to appellate jurisdiction, details are given separately.

ORIGINAL JURISDICTION—LOWER COURTS.

The Lower or Magistrates' Courts comprise the Courts of Petty Sessions, including Childrens' Courts, the Small Debts Courts, and the Licensing Courts.

All persons entered in the charge-books of the police, except such as have been committed by a Supreme Court Judge or by a Coroner, must be brought to a Court of Petty Sessions, either to be treated summarily or to be committed to a higher tribunal. The jurisdiction of magistrates is limited generally to offences involving a sentence of six months' imprisonment, but under certain Acts sentences up to two years' imprisonment may be imposed. A magistrate is not empowered to pass cumulative sentences, but while an offender is undergoing a term of imprisonment for the committal of one offence, he may be brought up in a lower court to answer another charge, and may be sentenced to another term, to take effect from the expiry of the first sentence.

By the Small Debts Recovery (Amending) Act, 1905, the jurisdiction of Magistrates' Courts is extended to include action for the recovery of a debt or liquidated demand not exceeding £50, whether on balance of account or after admitted set-off or otherwise.

COURTS OF PETTY SESSIONS.

Courts of Petty Sessions are held by Stipendiary Magistrates in the Sydney, Parramatta, Newcastle, and Broken Hill districts, and in the country districts by Police Magistrates, also Justices of the Peace, the latter being honorary officers.

The total number of offences charged at all Courts of Petty Sessions has varied but slightly from year to year during the last four years, as the following table shows:—

	1907.	1908.	1909.	1910.
Children's Courts	2,636	2,090	2,445	2,020
Other Magistrates' Courts ...	71,668	71,074	69,873	71,940
All Magistrates' Courts	74,304	73,164	72,318	73,960

The following table summarises the operations of these Courts for 1910:—

Procedure.	Charged before Magistrates.	Treated summarily.			Committed to higher Courts.
		Convicted.	Discharged, &c.	Total.	
By arrest... ..	45,914	41,335	3,514	44,849	1,065
By summons	28,046	22,336	5,599	27,935	111
Total	73,960	63,671	9,113	72,784	1,176

The cases (1,176) committed to higher courts represents 1·6 per cent. of the total charges; the remainder, representing 98·4 per cent., were summarily treated, convictions resulting from 86 per cent. of the charges. A division of accused persons, according to sexes, shows that the charges against women

number 7,200, being only 9·7 per cent. of the total, and the relative seriousness of offences is evident from the fact that 1·3 per cent. of women charged were committed to higher courts, as against 1·6 per cent. of men. Following are the figures on which these proportions are based :—

Sex.	Charged before Magistrates.	Treated summarily.			Committed to higher Courts.
		Convicted.	Discharged, &c.	Total.	
Males	66,760	57,842	7,838	65,680	1,080
Females	7,200	5,829	1,275	7,104	96
Total	73,960	63,671	9,113	72,784	1,176

Reduced to a population basis the figures of the preceding table show the following result :—

Sex.	Per 1,000 of mean Population.				
	Charged before Magistrates.	Treated summarily.			Committed to higher Courts.
		Convicted.	Discharged, &c.	Total.	
Males	78·97	68·42	9·27	77·69	1·28
Females	9·27	7·51	1·64	9·15	0·12
Total	45·59	39·25	5·62	44·87	0·72

The disparity between the proportion of male and female offenders is evident, viz., 78·97 and 9·27 respectively per 1,000 of general population.

The fact of Stipendiary Magistrates being maintained in the metropolitan district, involves a great proportion of cases charged being summarily treated, and it is noticeable that the proportion of acquittals and discharges has diminished steadily since 1870, when about 25 per cent. of the persons brought before magistrates were discharged, to about 12 per cent. for the past four years. The following table shows the proportion of summary convictions by magistrates, of acquittals and discharges, and the committals to higher courts at intervals since 1870 :—

Year.	Summary Convictions.	Acquittals and Discharges.	Committals to higher Courts.
	per cent.	per cent.	per cent.
1870	69·0	24·7	6·3
1880	76·9	18·4	4·7
1890	80·4	16·0	3·6
1900	83·1	14·9	2·0
1905	84·5	13·1	2·4
1906	84·1	13·9	2·0
1907	86·5	11·8	1·7
1908	87·0	11·5	1·5
1909	86·5	11·8	1·7
1910	86·1	12·3	1·6

Investigation into the nature of the offences for which summary convictions were effected during 1910 shows that only a small proportion were really criminal offences, viz., offences against person or property. By far the largest proportion were offences against good order, being usually of a minor character, viz., drunkenness, disorderliness, and vagrancy. Another and numerically fairly important class of offences are those which involve infringement of the provisions of particular enactments. Following is a classification of summary convictions, showing also their weight as compared with the general population, during each of the last five years :—

Year.	Against the Person.	Against Property.	Against Good Order.	Other Offences.	Total.
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NUMBER OF SUMMARY CONVICTIONS.

1906	1,500	3,469	37,294	12,546	54,809
1907	1,587	3,209	40,522	12,785	58,103
1908	1,494	3,282	40,268	12,586	57,630
1909	1,370	3,391	38,578	12,428	55,767
1910	1,538	3,619	42,959	15,555	63,671

PER 1,000 OF MEAN POPULATION.

1906	1.00	2.31	24.85	8.36	36.52
1907	1.03	2.09	26.35	8.31	37.78
1908	.95	2.10	25.70	8.03	36.78
1909	.86	2.13	24.23	7.81	35.03
1910	.95	2.23	26.48	9.59	39.25

The following table gives a comparison of summary convictions of males and females during the years 1906 and 1910, excluding cases treated in Children's Courts :—

Offences.	Summary Convictions.					
	1906.			1910.		
	Males.	Females.	Total.	Males.	Females.	Total.
Against the person	1,265	172	1,437	1,372	149	1,521
Against property	2,323	377	2,700	2,519	353	2,872
Against good order	29,615	7,206	36,821	38,355	4,302	42,657
Other offences	11,378	779	12,157	14,212	970	15,182
Total	44,581	8,534	53,115	56,458	5,774	62,232

A survey of these rates shows that the increase of offences, as evidenced by convictions, for the two years resulted primarily from a considerable increase in offences of men against good order, though in cases of both men and women other offences, excluding offences against person or property, are an appreciable factor. The reduction in more serious offences of women is noticeable, and closer study would probably reveal a prominent causative influence in effecting such decreases in present methods of prison treatment, e.g., the application of the principle of indeterminate sentences.

For each year of the last quinquennial period the total number of summary convictions and the proportion per 1,000 of population show as follows :—

Year.	Summary Convictions.			Per 1,000 of mean Population.		
	Males.	Females.	Total.	Males.	Females.	Total.
1906	46,211	8,598	54,809	58·72	12·04	36·52
1907	49,894	8,209	58,103	61·83	11·23	37·78
1908	49,727	7,903	57,630	60·60	10·59	36·78
1909	49,422	6,345	55,767	59·17	8·34	35·03
1910	57,842	5,829	63,671	68·42	7·51	39·25

Summary convictions in 1910 resulted in penalties as classified below :—

Offences.	Fines. (Paid.)	Imprisoned in default.	Imprisoned without option.	Bound over and released on probation.	Other Punish- ments.	Total.
Against the person ...	1,008	278	200	97	15	1,598
Against property ...	1,351	722	754	629	163	3,619
Against good order ...	24,215	17,026	983	308	427	42,959
Other offences ...	13,785	895	395	148	272	15,495
Total ...	40,359	18,921	2,332	1,182	877	63,671

Sentences of imprisonment in default are usually commuted by subsequent payment of fine; the extent to which this practice operates has been shown in connection with the prison services. The penalty of a fine was imposed in 93·1 per cent. of convictions, being paid promptly in 63·4 per cent. of cases, and in 29·7 per cent. leading to imprisonment in default. Imprisonment without option was ordered in 3·4 per cent. of convictions, and in 1·8 per cent. the offender was released from the courts on probation.

SMALL DEBTS COURTS.

The total number of small debts cases heard before Magistrates' Courts during 1910 was 30,059, in which the total amount awarded to plaintiffs by verdict of Court or judgment of Registrar was £77,700. The total number of cases initiated was 35,217, of which 23,138 related to amounts under £5, and 11,367 to amounts ranging from £5 to £25, the balance, viz., 712 cases, related to amounts over £25 and under £50. At the end of the year 5,158 cases were awaiting consideration. Garnishee cases taken numbered 962; in these cases the Court may order that all debts due by a garnishee may be attached to meet a judgment debt, and further direct that the garnishee pay so much of the amount owing as will satisfy the judgment debt.

Oral examinations of judgment debtors as to debts due to them ordered on the application of a judgment creditor numbered 354 in 1910 as compared with 136 for 1909; interpleader cases, as to claims made to goods held under a writ of execution, by a person not party to the suit, numbered 56 as compared with 85 in the previous year.

CHILDREN'S COURTS.

Children's Courts under the Neglected Children and Juvenile Offenders' Act, 1905, were established in suburban and country districts with the object of removing children as far as possible from the atmosphere of a public court. Magistrates exercise powers in respect of children and of offences committed by and also against children. They also possess the authority of

a Court of Petty Sessions or Justice under the Children's Protection Act, 1902, and the Infant Protection Act, 1904. During the year 1910 the cases taken in Children's Courts numbered 2,020. In addition to these cases, 1,619 were for orders, such as the disposal of neglected and uncontrollable children, and the maintenance of children.

The Neglected Children's Act is designed to remove children from association with reputed thieves, and otherwise provides for the protection and reformation of neglected or uncontrollable children and juvenile offenders. The physical and moral interests of the children engaged in street trading are conserved, with which object girls under 16 years of age are prohibited from trading, and boys between the ages of 10 and 16 years allowed to trade only when licensed, and so subjected to supervision. During the year ended 31st March, 1910, licenses were issued to 776 children, of whom 584 (boys) were under age 14.

The following table shows a classification of cases taken at Children's Courts during 1910 :—

Offences.	Summarily treated.				Committed to higher Courts.		Total.		
	Convicted.		Discharged or Withdrawn.						
	M.	F.	M.	F.	M.	F.	M.	F.	Total.
Against the person ..	67	10	62	20	48	...	177	30	207
Against property ...	711	36	334	18	2	...	1,047	54	1,101
Against good order ...	298	4	41	4	1	...	340	8	348
Other offences... ..	308	5	44	4	...	3	352	12	364
Total ...	1,384	55	481	46	51	3	1,916	104	2,020

The figures shown above and other particulars of Children's Courts are included in the aggregate tables relating to Magistrates' Courts.

An interval of five complete years having elapsed since this type of Court was instituted a fair basis of comparison has been established. The figures following show the number of convictions recorded in each class during the period 1906-10 :—

Offences.	Convictions.				
	1906.	1907.	1908.	1909.	1910.
Against the person ...	63	75	85	78	77
Against property	769	817	696	757	747
Against good order ...	473	579	426	296	302
Other offences ...	389	600	223	243	313
Total ...	1,694	2,071	1,430	1,374	1,439

LICENSING COURTS.

In the metropolitan district of the State, the Court for granting licenses to sell intoxicants consists of the Metropolitan Stipendiary Magistrates for the time being, with the addition of one or more Justices of the Peace specially appointed, bringing the number of occupants of the Bench up to seven, three of whom form a quorum. In country districts the local Police

Magistrate and two Justices of the Peace, also specially appointed, constitute the Court. In 1882 the number of licensed houses was 3,063, in 1907 it was 3,022, and in 1910, 2865, the decrease being 157, or 5·13 per cent. since the first local option vote was taken in 1907.

The Liquor Amendment Act of 1905, amending the Liquor Act of 1898, regulated the sale of intoxicating liquor, and facilitated exercise of the principle of local option. In addition to stringent regulations regarding the licensing and management of hotels, the registration of clubs in which liquor is sold is compulsory. Registration is granted only to properly-conducted associations, established for a lawful purpose, on suitable premises.

LOCAL OPTION.

The local option vote is taken in terms of the Act of 1905 at each general election of the State Parliament. Publicans' or wine licenses in any electorate may not exceed the number existent at the commencement of the Act, except an increase be granted on account of growth of population. Clubs may not exceed the number formed before November, 1905, and registered before March, 1906.

Following are the propositions submitted to electors at each general election in this connection—

- (a) That the number of existing licenses be continued ;
- (b) That the number of existing licenses be reduced ;
- (c) That no licenses be granted in the electorate ;
or where resolution (c) has been previously carried—
- (d) That licenses be restored.

To carry resolution (c) or (d) the votes in favour must represent three-fifths of the total votes polled, and 30 per cent. of the electors on the roll. Where resolution (c) is not carried the votes are added to those given for resolution (b).

In electorates where a majority of electors vote for reduction, licenses may be reduced by one-fourth. Where the "no license" resolution is carried, licenses in the electorate cease to operate within three years, except in cases of special extension.

Particulars of the local-option vote taken at the two elections since the Act was passed are shown in the following statement :—

Year.	Electorates in which Electors carried.		Votes recorded for—		
	Continuance.	Reduction.	Continuance.	Reduction.	No-license.
1907	25	65	209,384	75,706	178,580
1910	76	14	324,973	38,856	212,889

The proposition that no licenses be granted has not been carried in any electorate. In 1907 the proportion of votes recorded for continuance was 45·16 per cent. ; for reduction, 16·33 per cent. ; and for no-license, 38·51 per cent. At the last election, the percentages were :— Continuance, 56·35 ; reduction, 6·74 ; and no-license, 36·91.

Special Courts were constituted to effect the reductions in accordance with the Act. The time at which the reduced licenses will cease varies from six months to three years, according to the character of the house, and under special circumstances, the latter period may be extended.

The following table gives particulars respecting the number of public houses, and the average number of residents to each :—

Year.	Licenses Issued.	Average number of Residents to each House.
	No.	
1900	3,163	428
1901	3,151	434
1902	3,132	444
1903	3,128	452
1904	3,098	464
1905	3,063	479
1906	3,055	491
1907	3,022	509
1908	2,980	526
1909	2,923	545
1910	2,865	566

The number of wine licenses current during 1910 was 564 and 76 club licenses were issued. As a result of the first local-option vote taken in 1907, 293 hotel licenses, and 46 wine licenses, were ordered to cease on dates varying from 10th September, 1908, to 31st December, 1913.

CORONERS' COURTS.

Coronial inquiries must be held in all cases of violent or unnatural death, and at the discretion of the Coroner in cases of destruction or damage to property by fire, and on the evidence the Coroner is empowered to commit for trial persons judged guilty of manslaughter, murder, or arson. In the Metropolitan Police District Coroners are specially appointed; but outside that district Stipendiary or Police Magistrates have Coronal powers, except that as regards a magisterial inquiry the Magistrate is not empowered to commit suspected persons for trial, but must terminate his inquiry upon the disclosure of facts attesting criminality, and direct the police to prosecute at the nearest police court.

Inquests upon Deaths.

Under the Coroner's Court Act, 1904, a Coroner is empowered to hold an inquisition, sitting alone, but upon request of a relative, of the secretary of any society of which the deceased was a member, or on the order of the Minister of Justice, a jury of six is called. The number of deaths during 1910, the causes of which were investigated by Coroners or Magistrates was, 972 of males and 245 of females, giving a total of 1,217 inquests and magisterial inquiries. Of the 1,217 deaths, the verdicts of the courts were that 951 were caused by violence, and of these cases 131 males and 12 females were found to have committed suicide.

Inquests upon Fires.

Inquiries were held during 1910 into the origin of 84 fires; accident was ascribed as the cause in 5 cases, arson in 16, carelessness in 1 case; in 62 instances there was insufficient evidence.

The operations of Coroners' Courts resulted in 57 persons being committed for trial to higher Courts, viz.:—48 men and 9 women, the offences charged showing for murder, 17 males and 5 females; manslaughter, 28 males and 4 females; arson, 3 males.

DISTRICT COURTS, &c.

District Courts are held for the trial of civil causes where the property involved or the amount claimed does not exceed £400, and in cases where a title to land not exceeding £200 in value is in question. These Courts are presided over by Judges who also perform the duties of Chairmen of Quarter Sessions for the trial of prisoners, except those charged with capital crimes. District Courts are held during ten months of the year in the metropolis, and twice a year in all important country towns. The Judge is not assisted ordinarily by a jury; but in cases where the amount in dispute exceeds £20, either of the parties, by giving notice to the Registrar of the Court, may have a jury consisting of four or twelve men. On questions of law, and in respect of admission or rejection of evidence, appeal lies to the Supreme Court. At the end of 1910 there were 71 District Courts in the State.

Particulars of suits brought in such Courts during the last ten years are given in the following table :—

Year.	Total causes commenced.	Causes tried.		Causes discontinued.	Judgment for Plaintiff by default, or confession, or agreement.	Causes referred to Arbitration.	Causes pending and in arrears.	Total amount of Claims.	Court Costs of Suits.
		Verdict for Plaintiff.	Verdict for Defendant (including non-suits).						
	No.	No.	No.	No.	No.	No.	No.	£	£
1901*	4,265	1,577	217	1,743		2	726	113,392	9,020
1902*	4,904	1,161	266	2,554		2	921	126,788	11,278
1903*	4,673	1,064	213	2,541		2	853	121,989	9,354
1904*	4,042	833	198	1,201	1,014	1	795	103,007	8,944
1905*	3,687	763	186	995	999	2	742	100,362	9,227
1906	3,277	489	191	1,014	972	2	609	123,510	8,708
1907	2,971	388	156	852	903	2	670	134,991	9,470
1908	3,565	371	194	898	1,239	3	860	166,680	9,346
1909	4,314	479	191	1,206	1,398	5	1,035	204,642	10,853
1910	2,930	253	137	740	1,059	3	738	130,295	8,929

* Year ended on 1st March.

Of the 390 causes heard during 1910, only 51 were tried by jury. During the same period there were 11 appeals from judgments given in District Courts, of which 9 were affirmed. There were also 9 motions for new trials, of which 3 were granted. The amount of judgment for the plaintiff during the year was £41,525.

The several District Court Judges under the District Courts Act, 1901, and its amendment of 1905, numbering nine, and including the Judge in the Industrial Court and two Judges attached to the Metropolitan District, are also the Chairmen of Courts of Quarter Sessions and Judges of the Court of Review within their respective districts, as well as Judges of the Court of Marine Inquiry.

THE SUPREME COURT.

The Supreme Court of New South Wales, consisting of the Chief Justice and six Puisne Judges, has jurisdiction in all matters which, under any Imperial Act in force in England on 1st March, 1829, and applicable to New South Wales, or any Imperial Act adopted and directed to be applied in New South Wales, pertained to the jurisdiction of His Majesty's Courts at Westminster, or the respective Judges thereof in the administration of justice. Further, every power, jurisdiction, or authority vesting in the Court, or the Judges collectively, is exercisable lawfully by two or more Judges of the Court.

The Chief Justice and three Puisne Judges are engaged ordinarily in matters of Common Law, including the Criminal and Civil jurisdictions; and under the Supreme Court and Circuit Courts Act, 1900, the Judges then holding special jurisdictions were confirmed on their commissions as follows:—

The Chief Judge in Equity.

The Judge exercising the Matrimonial Jurisdiction of the Court.

The Judge in Bankruptcy.

The Probate Judge.

Puisne Judges are maintained to the maximum number of six by appointment to any vacancy of a barrister qualified by at least five years' standing, and the commission of every appointed judge is in force during his good behaviour, and revocable only upon address of both houses of the Legislature.

Appointment may be made as Acting Judge of any Judge of the District Court, or of any barrister or solicitor of at least seven years' standing; and Judges may be authorised to exercise special jurisdiction, having while so doing co-ordinate jurisdiction with all the power and authority of the particular commission.

The emoluments of office are a salary of £2,600 per annum for each Puisne Judge, and £3,500 per annum for the Chief Justice; and a pension on retirement after fifteen years' service, or on permanent disability or infirmity, of seven-tenths of the actual salary at date of retirement, such pension in the event of acceptance of any new appointment under the Crown to merge or be reduced *pro tanto* during the tenure of appointment according to the salary pertaining to such new appointment.

The work of the Court is taken in four terms, the durations of which are arranged by the Judges in the particular jurisdictions, and during vacation, to prevent possible delay and consequent mischief, every Judge is empowered to make such orders and grant such writs as are ordinarily only made or granted by the Court. In cases of exigency, such power is exercisable by any Judge during term. The Judges also arrange the dates of vacation, and of going on circuit.

COMMON LAW PROCEDURE.

Under the Supreme Court Procedure Act, 1900, the parties to an action may consent to dispense with a jury, and the finding of a Judge ranks as the finding of a jury. Issues under the Real Property Act may also be tried without a jury, and applications directed by the Real Property Act, 1900, to the Supreme Court may be made to the equitable jurisdiction of the Court, or the Supreme Court holden before three Judges.

RULES OF COURT.

Rules of Court regulating its practice and procedure are made by the Judges of the Court, or by any three of them, being variable from time to time, subject to the approval of Parliament; but non-compliance with such rules does not void any proceeding unless the Court or a Judge direct, though such proceedings may be set aside as irregular or amended.

EQUITY PROCEDURE.

Equitable relief may, on rules made, be given on an originating summons, appeals lying to the Full Court, and the Equity Court has discretion to refuse an administration decree if the questions between the parties can be determined otherwise.

CIVIL JURISDICTION.

Civil actions are tried usually before a jury of four persons, but either party to the suit, on cause shown, may apply to a Judge in Chambers to have the cause tried before a jury of twelve. Twice the number of jurors

required to sit on the case are chosen by lot, from a panel summoned by the Sheriff, and from that number each of the parties strikes out a proportion, the remainder thus selected by both parties constituting the jury. The jury find only as to the facts of the case, being bound by the dicta of the Judge on points of law. From the Court thus constituted appeal lies to the "Full Court," sitting *in Banco*, which is composed generally of at least three of the Judges. The Chief Justice, or in his absence the senior Puisne Judge, presides over the Full Court, which gives its decision by majority. New trials may be granted where the Judge has admitted erroneously or rejected material evidence; where he has directed the jury wrongly on a point of law; where the verdict of the jury is clearly against evidence; or where, from some other cause, there has been evidently a miscarriage of justice.

Provision is made for appeal by a suitor to the Privy Council, subject to leave from the Supreme Court. The dispute must involve a minimum amount of £500, or affect the construction of a New South Wales statute. In other cases, application for leave to appeal must be made directly to the Privy Council. The British Government appointed the Chief Justice of South Australia to a seat on the Judicial Committee of the Privy Council, so as to secure in the deliberations of the Committee sound advice as to the laws, especially in relation to land, of the States.

ADMIRALTY COURTS.

On 1st July, 1911, the Vice-Admiralty Court, constituted by the Chief Justice as Judge-Commissary with a Puisne Judge in association, ceased to exist as such; but in its stead, the Supreme Court of the State was erected into a Colonial Court of Admiralty, with power to hear and determine matters previously determined by the Vice-Admiralty Court. During 1910, 15 causes were taken in the Vice-Admiralty Court, viz., 8 actions as to loss by collision, 5 as to salvage, and 2 as to service of goods, towage, &c. In one case verdict was given for plaintiff; the remaining cases concluded were settled by the parties.

SHERIFF'S OFFICE.

The transactions of the Sheriff's Office during 1910 include the issue for service of 881 writs of summons in the Supreme Court, as against 991 for 1909; the money value involved is not recorded. Other writs issued include 251 writs of *fiery-facias*, involving amounts aggregating £34,462, and other writs numbering 265 and aggregating £4,895 in value.

EQUITY JURISDICTION.

The Equity Act, 1901, consolidated enactments relating to the practice, procedure, and powers of the Supreme Court in matters of equity demanding relief, and including the appointment of guardians of infants and the administration of their estates. The Judge in Bankruptcy exercises equitable jurisdiction as the Judge in Equity, with the assistance of two other Judges, the decision of the majority having the effect of a Full Court decision. The Court, in making binding declarations of right, may call for the assistance of merchants, engineers, actuaries, or any other persons, has power to decide legal titles, to award damages, or grant specific performance; and exercises all the powers of the Common Law Jurisdiction of the Supreme Court. The Court may also delegate investigations to the Master in Equity, who is also the Master in Lunacy, and undertakes various duties, as of Taxing Officer, Head of the Records and Writ Office, &c. At 31st December, 1910, the Master in Lunacy held Trust Funds

amounting to £195,637. The following is a statement of the transactions in this jurisdiction during the last ten years :—

Year.	Statements of Claims.	Statements of Defence.	Petitions.	Summonses.	Motions.	Decrees and Orders.
	No.	No.	No.	No.	No.	No.
1901	131	87	58	167	159	668
1902	176	86	136	149	140	797
1903	163	91	117	175	135	806
1904	211	98	89	176	174	1,245
1905	180	88	60	192	164	1,050
1906	149	86	64	183	127	1,030
1907	172	88	71	195	147	1,072
1908	191	124	65	151	135	1,047
1909	210	121	66	153	168	1,016
1910	181	117	87	166	120	949

The amount of Trust Funds invested under Equity Jurisdiction for 1910 was £663,049, the investments being made at interest rates ranging from 1 to 6 per cent.

PROBATE JURISDICTION.

Under the Wills, Probate and Administration Act, 1898, the Supreme Court in its Probate Jurisdiction absorbed the powers previously vested in the Primary Judge in Equity; and under the Administration Amending Act, 1906, formal duties in the granting of probates and letters of administration are delegated to the Registrar of Probates, who is also the Prothonotary and Ecclesiastical Clerk. In estates of less value than £300 the intervention of a solicitor is unnecessary.

The number of probates and letters of administration granted by the Supreme Court in its testamentary jurisdiction for the last ten years is shown in the following table :—

Year.	Probates granted.		Letters of Administration.		Total.	
	Number of Estates.	Value of Estates.	Number of Estates.	Value of Estates.	Number of Estates.	Value of Estates.
		£		£		£
1901	1,676	6,240,296	981	793,163	2,657	7,033,459
1902	1,729	5,188,341	1,053	619,279	2,782	5,807,620
1903	1,787	6,345,098	980	834,784	2,767	7,179,882
1904	1,854	5,536,494	996	619,469	2,850	6,155,963
1905	1,842	6,999,863	962	714,553	2,804	7,714,416
1906	1,927	6,697,600	925	831,837	2,852	7,529,437
1907	2,045	6,835,381	1,039	728,118	3,084	7,563,499
1908	2,114	7,054,170	980	784,402	3,094	7,838,572
1909	2,104	10,295,793	1,031	846,275	3,185	11,142,068
1910	2,261	7,649,344	1,075	1,184,990	3,336	8,834,934

The figures here shown represent the gross values of estates, inclusive of those not subject to duty, but the Stamp Duties Department return shows the net values of the estates, excluding those not subject to duty. Probates taken out a second time, and included above, also tend to increase the difference between the figures recorded for the two Departments. The large accretion to the value of estates during 1909 is due to the probate in one exceptionally large estate.

BANKRUPTCY JURISDICTION.

Any person unable to meet his debts may surrender his estate for the benefit of his creditors, or the latter may, under certain specified conditions, apply for a compulsory sequestration, the case coming under the Bankruptcy Jurisdiction of the Supreme Court.

Certain of the powers vested in the Judge in Bankruptcy are relegated to the Registrar in Bankruptcy, and in country districts Police Magistrates and Registrars of District Courts appointed as District Registrars, have the same powers and jurisdiction as the Registrar in respect to the examination of bankrupts and the issue of summonses; but appeal from a decision of the Registrar, or of a District Registrar, lies to the Judge in Bankruptcy, who also deals with questions relating to priority of claims.

An official assignee, deputed by the Judge to manage the estates of insolvents, receives $2\frac{1}{2}$ per cent. commission on the amount realised, and $2\frac{1}{2}$ per cent. on the amount of dividends declared, and in some cases special remuneration awarded by the Court. Creditors may accept, and the Court endorse, a proposal for a composition, or for a scheme of arrangement, subject to the approval of a majority representing three-fourths of the value of all approved claims. Such a proposal being accepted, one or two trustees may be appointed in place of, or in addition to, the official assignee. After acceptance of a composition, or approval of a scheme of arrangement, a bankrupt's estate may be released from sequestration. Release may be effected when all creditors have been paid in full, or when they have given a legal quittance of the debts due. In other cases, a bankrupt may give notice, by advertisement, three months from the time of sequestration, of his intention to apply for a certificate of discharge, whereupon the Court receives a report from the official assignee, and may either grant or refuse an absolute order of discharge, suspend the operation of the order for a certain time, or grant an order subject to conditions respecting the future earnings or income of the bankrupt. Operations in the Bankruptcy Court are detailed in discussing this matter in the chapter relating to Private Finance.

Analysis of the occupations of persons declared bankrupt during 1910 shows the following grouping:—

Group.	Number of Bankrupts.	Group.	Number of Bankrupts.
Primary Industries	70	Transport and communication..	12
Food and drink	53	Clothing trades	6
Building and allied trades ...	42	Printing	5
General labouring	42	Miscellaneous	18
Trading	41	Not stated	18
Professional	18	Total	325

DIVORCE AND MATRIMONIAL CAUSES JURISDICTION.

The Supreme Court of New South Wales has jurisdiction in divorce, dating from the Matrimonial Causes Act, 1873, under which the important grounds for divorce were adultery on the part of the wife, and adultery and cruelty on the part of the husband. The present law is contained in the Matrimonial Causes Act, 1899, under which is vested in the Supreme Court jurisdiction in respect of all causes, suits, and matters matrimonial, excepting in respect of marriage licenses. Dissolution of marriage may be granted on petition as under,—

Husband v. Wife.—Adultery, desertion, or habitual drunkenness and neglect of domestic duties, for three years; refusal to obey an order for restitution of conjugal rights; imprisonment for three years and upwards; attempt to murder or to inflict grievous bodily harm, or repeated assaults and cruel beatings during one year preceding the date of the filing of the petition.

Wife v. Husband.—Adultery and desertion for two years; desertion, or habitual drunkenness, with neglect to support and cruelty, for three years; refusal to obey an order for restitution of conjugal rights; imprisonment for three years and upwards; imprisonment under sentences aggregating three years, within a quinquennial period; attempt to murder or to inflict grievous bodily harm, or repeated assaults and cruel beatings within one year of petition.

The petitioner must have been domiciled in the State for three years or upwards at the time of instituting the suit.

Judicial separation may be sought on grounds of desertion without cause extending over two years, and nullity may be declared in cases of marriages which are void.

The law provides also for suits for the restitution of conjugal rights, for alimony, and generally for the enactment and enforcement of decrees.

Particulars as to divorces granted will be found in the part "Social Condition" of this Year Book.

INTESTATE ESTATES.

Under the Wills, Probate, and Administration Act, 1898, the Registrar of Probates, as Curator of Intestate Estates, under the jurisdiction of the Supreme Court, is empowered to apply for orders to administer estates of intestates, or of persons who have appointed the Curator as executor, or where no executor is appointed. Moneys unclaimed after six years are paid into the Consolidated Revenue Fund, but a rightful claimant may obtain payment, without interest, at any subsequent period.

The number of estates opened during 1910 was 625, from which the Curator received £40,181, and paid away £18,976; in connection with estates opened during previous years £21,426 was received, and £42,296 paid away. Commission and fees to the amount of £3,253 were paid into the Consolidated Revenue Fund during the year. The revenue also benefited to the extent of £5,693 of unclaimed moneys, but on the other hand claims amounting to £2,350 were received for moneys which had been paid into the Consolidated Revenue Fund previously.

COMMON LAW JURISDICTION.

The following table gives the number of writs issued, and the amount for which judgment was signed, in the Supreme and Circuit Courts (Common Law Jurisdiction) during the last ten years. The number of writs issued includes cases which were subsequently settled by the parties; but the total amount involved in these claims is not, of course, included in the sum for which judgment was signed. The amounts for signed judgments include taxed costs in all cases where the judgments have been completed at the end of the year. During 1910 the total bills of costs amounted to £39,282, but from this a sum of £12,606 was taxed off, leaving the net costs at £26,676. The Court costs of taxation amounted to £539:—

Year.	Writs issued.	Judgments signed.	Year.	Writs issued.	Judgments signed.
	No.	£		No.	£
1901	2,890	309,346	1906	2,404	143,386
1902	3,533	475,161	1907	1,832	132,839
1903	4,030	285,801	1908	2,266	189,350
1904	3,973	220,305	1909	2,023	193,039
1905	3,719	176,930	1910	1,868	139,223

The number of causes set down and tried is shown below:—

Year.	Causes set down.	Not proceeded with.	Referred to Arbitration.	Causes Tried.				
				Verdict for Plaintiff.	Verdict for Defendant.	Disagreement of Jury.	Non-suited.	Total.
	No.	No.	No.	No.	No.	No.	No.	No.
1901	280	117	1	116	28	1	17	162
1902	264	86	...	114	40	6	18	178
1903	300	102	4	131	39	3	21	194
1904	266	87	7	119	38	3	12	172
1905	260	89	2	102	49	5	13	169
1906	235	76	2	105	34	5	13	157
1907	174	62	4	89	19	1	8	108
1908	221	91	1	86	30	1	12	129
1909	204	73	1	89	29	2	10	130
1910	210	80	1	106	19	...	4	129

The small number of causes set down for hearing in comparison with the number of writs issued indicates the extent to which cases are settled out of Court, and the effectiveness with which the mere issue of a writ secures settlement.

The Commercial Causes Act, 1903, provided an expeditious method for the trial of commercial causes, which include matters relating to the ordinary transactions of merchants and traders, the construction of mercantile documents, affreightment, insurance, banking, and mercantile usages. The parties to a Supreme Court common law action may secure the Judge's order to have it brought upon the list of Commercial Causes, and from this order there can be no appeal. To secure speedy settlement in accordance with the aim of the Act the Judge is empowered to dispense with juries, pleadings, and technical rules of evidence, and with proofs of writing and documents, and to order inspections and admissions; he may also settle the issues for trial, and state a case on points of law for the Full Court.

COURTS OF MARINE INQUIRY.

A Court of Marine Inquiry is constituted of one or more District Court Judges assisted by assessors appointed under the Navigation Act, such assessors having power only to advise and not to adjudicate upon any matter before the Court.

Such a Court hears and determines inquiries as to wrecks, shipping casualties, charges of incompetency or misconduct of officers, and appeals and references under the Navigation Act. Inquiries held during 1910 numbered 21, of which 8 were as to collisions and 7 to stranding and shipwreck of vessels. The Courts found in 7 cases that blame was not attachable to any particular person, in 18 cases the master was exonerated.

CRIMINAL JURISDICTION.

A Judge of the Supreme Court presides over the Central Criminal Court of Gaol Delivery held quarterly at Sydney, when all prisoners are tried by a jury of twelve, chosen by lot from the panel provided by the Sheriff. In capital cases the right to challenge, both by the Crown and by the accused, is limited to twenty jurors, except for cause shown, and in cases other

than those in which the sentence of death may be imposed, whether felonies or misdemeanours, the number challenged may not exceed eight. At the close of the case for the prosecution, an accused person may also make a statement in his defence without rendering himself liable to examination thereupon, either by Counsel for the Crown or by the Court. The Accused Persons Evidence Act, 1898, provides that it shall not be lawful to comment at the trial of any person upon the fact that he has refrained from giving evidence on oath on his own behalf. The verdict of the jury must be unanimous, and they may be detained until they give a verdict or are discharged by the Court. If no verdict is returned, the prisoner may be tried again before another jury.

CIRCUIT COURTS.

The Supreme Court and Circuit Court Act, 1900, authorises the apportionment of the State into three or more circuit districts, in which Circuit Courts may be holden by a judge. Such courts to be courts of record, of oyer and terminer, and of assize and nisi prius for New South Wales, and of gaol delivery in and for the particular district. Jurisdiction in civil actions vests in every Circuit Court, which may try and determine all issues of fact, and inquire into and assess damages in actions before the Court. Further, every Circuit Court has criminal jurisdiction, to hear and determine all cases of crimes and misdemeanours committed in New South Wales, upon information by or on behalf of the Attorney or Solicitor-General, conviction involving liability to the same penalties as if imposed by the Supreme Court. Procedure in Circuit Courts is as established for the Supreme Court.

QUARTER SESSIONS.

The Courts of Quarter Sessions are held by Chairmen, who also perform the duties of Judges of the District Courts. There are seven Chairmen of Quarter Sessions; two of these preside over the Courts in the metropolitan district, and one each in the following districts:—Southern and Hunter, south-western, northern, north-western, and western. All offences, except those involving the capital penalty, are within the jurisdiction of the Court. On the trial of prisoners at Quarter Sessions, at the request of the prisoner's counsel, the Chairman must reserve questions of law for the consideration of the Supreme Court.

OPERATIONS BEFORE HIGHER COURTS.

During the year 1910, there were 1,028 persons, viz., 935 men and 93 women charged before the higher Courts of the State. The following table shows the results in the cases of these accused persons for 1909 and 1910 in comparison:—

Sex.	1909.			1910.		
	Charged.	Convicted.	Discharged, withdrawn, &c.	Charged.	Convicted.	Discharged, withdrawn, &c.
Males	1,015	565	450	935	495	440
Females	103	54	49	93	51	42
Total	1,118	619	499	1,028	546	482

Classifying accused persons according to the nature of the offences charged, it is found that, in cases both of males and females, offences against property are the most numerous. A statement is given below of the offences of the persons convicted in higher courts during 1910:—

Offences.	Males.		Females.		Total.	
	Number.	Per cent. of total.	Number.	Per cent. of total.	Number.	Per cent. of total.
Against the person	112	22·6	13	25·5	125	22·9
Against property	303	61·2	26	51·0	329	60·3
Forgery and against the currency ...	39	7·9	2	3·9	41	7·5
Against good order	4	·8	1	2·0	5	·9
Other offences... ..	37	7·5	9	17·6	46	8·4
Total	495	100·0	51	100·0	546	100·0

The following statement shows the character of the principal offences of persons convicted in higher courts during each of the last five years, and affords distinct evidence of reduced crime:—

Offences.	1906.	1907.	1908.	1909.	1910.
Against the person	142	153	144	146	125
Against property	446	394	384	382	329
Forgery and against the currency ...	60	50	56	60	41
Against good order	8	8	12	3	5
Other offences	42	24	18	28	46
Total	698	629	614	619	546

SPECIAL COURTS.

Special Courts have been established for the purposes of particular legislative enactments, such as the Industrial Court of New South Wales, and the Commonwealth Conciliation and Arbitration Court, concerning which details are given in part, "Employment and Arbitration," of this Year Book, and the Land Appeal Court, to deal with matters relating to the various Land Acts.

LAND APPEAL COURT.

For the year ended 30th June, 1911, the cases referred to the Court numbered 73, of which 63 were referred by the Minister for Lands, and 10 by local Land Boards. Of the cases heard during the period, 71 resulted in the appeal being upheld, and 17 were sent back for rehearing, 42 were dismissed, and 6 withdrawn.

APPELLATE JURISDICTION.

Courts having Appellate Jurisdiction are the following:—Courts of Quarter Sessions, the Supreme Court, the Full Court, the High Court of Australia, and, finally, the Privy Council.

COURTS OF QUARTER SESSIONS.

Appeal lies from Courts of Petty Sessions to Courts of Quarter Sessions, which so provide a ready means of bringing the orders and convictions of Stipendiary Magistrates and Justices under review, and assure co-ordination of procedure in the lower courts. During 1910, 400 appeals were taken before Courts of Quarter Sessions in this way, and of this total convictions were confirmed in 252 cases, varied in 38, and quashed in 62, the balance, viz., 48 cases being not concluded at end of the year. Questions of fact as well as of law may be taken before these courts, and the only savings as to the right of appeal from magistrates' orders or convictions are as to orders made under the Seamen's Act, and adjudication to imprisonment for failure to comply with an order for payment of money, or for finding sureties.

APPEALS TO SUPREME COURT.

During 1910, applications for writs of prohibition and mandamus numbered 32, of which 16 were to Judges in Chambers, and 16 to the Full Court. Writs granted were 13, viz., one of mandamus and 12 of prohibition. Special cases stated numbered 23, in 5 of which decisions were sustained, viz., 3 from Magistrates' Courts, and 2 land cases. Decisions reversed numbered 17, of which 14 were from Magistrates' Courts, and included 2 cases under the Local Government Act, and 2 cases stated by the Commissioner of Stamp Duties.

APPEALS TO FULL COURT.

In Common Law 70 cases were taken, 12 being criminal cases, in which 8 convictions from Quarter Sessions, Central Criminal, and Circuit Courts were affirmed, and 4 reversed. Of 58 civil cases, 28 were new trial motions, of which the rule was made absolute in 11 cases, and discharged in 16, 1 being not proceeded with. Of motions *noni* for new trial, numbering 30, 20 were granted and 3 refused. Seven civil cases remained unconcluded at end of the year. The following statement shows the appeals taken in Equity, Bankruptcy, and Divorce, viz. :—

Equity, 1 sustained, and 4 disallowed; Bankruptcy, 1 disallowed; Divorce, 3 sustained and 2 disallowed.

Two cases in Divorce were not concluded. Appeals from District Courts numbered 17, of which 5 were allowed, 8 refused, and 4 not concluded.

APPEALS TO PRIVY COUNCIL.

During 1910 2 applications were made, 1 each in Common Law and Bankruptcy; and in the 2 cases taken before the Privy Council, the decisions disputed were upheld.

HIGH COURT OF AUSTRALIA.

Under the Commonwealth Constitution Act, the judicial power of the Commonwealth vests in the Supreme Court, which has both original and appellate jurisdiction as the High Court of Australia. Its original jurisdiction extends to matters *inter alia*, in which the Commonwealth is a party, or which lies between States or residents of States. Its appellate jurisdiction extends to the hearing and determination of appeals from all judgments, decrees, orders and sentences of any justice exercising the original jurisdiction of the High Court, or any other Federal Court or of the Supreme Court, or any other Court of any State from which an appeal previously lay to the King in Council. The judgment of the High Court, in all such cases, is final and conclusive; its sittings are held in the capitals of the States, as may be necessary. Hitherto the majority of actions brought before the High

Court have referred to its appellate jurisdiction. During 1910 the following appeals were made from decisions of Judges representing the Supreme Court of New South Wales :—

Jurisdiction.				Appeals set down.	Allowed.	Disallowed.
Common Law	...	...	...	1	1	...
Equity	...	...	...	9	6	3
Probate	...	...	...	1	...	1

In addition appeals from the Full Court of the Supreme Court of New South Wales numbered 20, of which 16 were allowed, 3 dismissed, and 1 otherwise settled.

THE GOVERNMENT IN LITIGATION.

The Government of the State was concerned in 815 actions commenced during the year 1910, viz., in 787 as plaintiff, and in 28 as defendant. The majority (516) of these actions were settled without coming to trial; the causes tried, numbering only 50, resulted in 46 instances in verdicts for the Government, 40 being as plaintiff, and 6 as defendant; in 1 cause as defendant, and 3 as plaintiff, the decision was against the Government. Causes under consideration at end of the year numbered 249. The majority of actions commenced, related to taxation (574), and to agriculture (106).

A review of the actions at law, in which the Government has been concerned as a party, reveals that the record for 1910 is the lowest in any year of causes commenced, and the highest records were for the years 1905, 6, 7 and 8, viz., 8,378, 14,404, 9,687, and 6,831 actions respectively.

In connection with the Railway Department, the actions commenced numbered 645, of which 545 were settled without trial; 34 were tried, and 66 were pending at the end of the year. In 19 of the causes tried verdict was given for the Railway Department, viz., 12 as plaintiff and 7 as defendant. In the Metropolitan Board of Water Supply and Sewerage the total actions commenced were 48, of which 1 was settled, and the balance, 47, being tried, resulted in verdicts for the Board.

PATENTS.—COPYRIGHT.—TRADE MARK CERTIFICATES.

Since 1st June, 1904, the administration of the Patents, Copyright, and Trade Marks Acts has devolved upon the Federal authorities, and a patent granted under the Commonwealth Act is thus afforded protection in all the States, the period for which it remains in force being limited to fourteen years. The copyright in a book, the performing right in a dramatic or musical work, and the lecturing right in a lecture, continue for forty-two years, or for the author's life, or seven years, whichever period is the longer.

The registration of a trade-mark protects it for fourteen years, but may be renewed as it expires. Under the "Commonwealth Designs Act" an industrial design may be protected for five years, provided it is used in Australia within two years of registration.

Under the various Federal acts, arrangements may be made for the protection in other countries of patents, copyrights, trade-marks, and designs.

In all cases the rights of holders under the legislation of a State were reserved to them.

During 1911 the Dominion of New Zealand enacted a Patent Designs and Trade Marks Act, which embodies, with but slight modifications, the provisions of the Commonwealth Act, and so extends a very great measure of uniformity beyond the limits of the United Kingdom to the whole of Australasia.

An important provision of the new Act enables the Supreme Court to make an order permitting the manufacture and carrying on in New Zealand of a patented article or process if the Court is satisfied that the patentee is not causing production to an adequate extent. Stringent provision is made to prohibit contracts, by which the purchaser, lessee, or licensee of a patented article or process is restrained from using or purchasing any article or process not the property of the patentee.

In connection with this process of extending uniformity towards the accomplishment, consciously or otherwise, of an Imperial ideal, it is of interest to note that in the early part of 1911 a conference was held in London of merchants and manufacturers for the purpose of securing the adoption and use of an Empire Trade Mark to indicate that the goods to which it is applied are of goods manufactured or produced in some part of the British Empire. Control of the Trade Mark was to be undertaken by the British Empire Trade Mark Association.

In connection with the compulsory working clauses in English enactments, between the introduction of the clause in 1907 and May, 1911, 75 applications were received for revocation of foreign patents allegedly not being adequately worked. In 21 instances the Comptroller-General revoked the patent. New industries established as a result of the clauses include metallic filament electric lamps, aniline dyes, mercerized cotton, safety razors, cash registers, shoemaking machinery, etc.

SOLICITORS AND BARRISTERS.

A solicitor has the right of audience in all Courts of New South Wales, and the Supreme Court may suspend or remove from the roll any solicitor who has been guilty of misconduct or malpractice.

A Candidate seeking admission as solicitor in New South Wales, provided he has not been admitted in England, Ireland, or Scotland, or in any State of the Commonwealth of Australia, must have qualified by passing examinations as outlined in part "Education" of this Year Book. Admission of a solicitor may take place only on the last day of any law term. A solicitor who ceases to practise for two years continuously is allowed to resume practice only under an order from the Court. A barrister who has been in practice as such for five years, having caused himself to be disbarred, may be admitted as a solicitor without examination.

The Board for admission of barristers of the Supreme Court consists of the Judges of the Supreme Court, the Attorney-General, and two elected members of the Bar. Applicants must have been students-at-law for three, or, in the case of graduates, for two years, and have passed all examinations prescribed by the Board. A solicitor who has been in practice for at least five years, and who has removed his name from the roll of solicitors, may be admitted as a barrister without examination.

MINING INDUSTRY.

THE discovery of gold in payable quantities in the year 1851 was the most powerful factor in effecting the settlement of population in New South Wales, and consequently in Australia. During the decade succeeding this discovery, gold-mining became the leading industry in the State, easily eclipsing in quantity and value of production the mining of coal which, up to that date, had been the only mineral raised. Naturally, in the earlier stages of gold-mining, when alluvial deposits were being worked, and diggers could obtain the metal readily, the knowledge of these conditions induced a great influx of population from other countries, and attracted the attention of the resident population from existing industries; but as the alluvial deposits became exhausted the character of the industry changed from the fluctuations of prospecting to the more settled conditions of an industry, requiring large capital and expensive machinery, under the direction and control of companies mainly organised on the no-liability system, and the surplus population of the early gold-field days naturally settled down to the development of more permanent industries, such as agriculture.

Since the period of permanent development in gold-mining various other metals have been found in New South Wales, and though gold still occupies a prominent place in the mineral wealth of the State, other metals, such as silver, tin, copper, and iron now join with it in rendering mining an important section of the primary industries.

MINERS EMPLOYED, AND PRODUCTION.

The following table gives the approximate number of persons actually engaged in the principal departments of mining during each of the past eight years:—

Mineral.	Miners employed at end of each year.							
	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
	No.	No.	No.	No.	No.	No.	No.	No.
Gold	11,247	10,648	10,309	8,816	7,468	6,363	5,585	5,247
Silver and Silver-Lead	6,035	7,071	7,887	9,414	10,021	7,560	6,207	7,999
Tin	2,502	2,745	2,884	3,795	3,173	2,456	2,037	2,028
Copper	1,816	1,850	2,171	3,047	3,764	2,745	2,024	2,296
Coal	13,917	14,034	14,019	14,929	17,080	17,734	18,168	17,618
Shale	200	112	118	270	276	350	401	426
Other Minerals ...	1,842	1,377	1,544	2,275	1,976	1,757	1,983	1,809
Total	37,559	37,837	38,932	42,546	43,758	38,965	36,405	37,413

The number employed during 1910 was 37,413, an increase of 1,008 as compared with the previous year, whilst the estimated number employed in 1911 was 37,017.

With the exception of 1903, the gold-miners have steadily decreased in number, till at the end of 1910 there were only 5,247, or less than half the number so employed in 1903. This apparent neglect of gold-mining is due to some extent to the diversity of the mineral wealth of this State; for, during the past few years, most of the available capital has been directed towards the development of other minerals, as is indicated by the increase in the number of men mining for silver, copper, and coal. In comparing the detailed returns for 1910 with those of the previous year, it is seen that there were 309 less men employed in quartz-mining and 29 in alluvial-mining. This falling-off is attributable to the decrease in the number of small gold-mines and claims worked, and the cessation of active prospecting and fossicking operations during the year. It is noticeable that fossicking has not been followed so much as in former years.

VALUE OF MINING PLANT AND MACHINERY.

The value of mining plant and machinery is approximately £5,122,848, of which £1,438,000 represents the value of the winning, weighing, and ventilating plant and machinery used in connection with coal and shale mines. The value of machinery in operation on other mineral fields is shown below:—

Type of Plant.	Value at 31st December, 1910.	Type of Plant.	Value at 31st December, 1910.
	£		£
Gold—Dredging	218,125	Tin	185,916
Other	480,424	Other Metals or Minerals...	307,359
Silver, Lead, and Zinc ...	1,942,524		
Copper	550,700	Total	£3,684,848

The value of plant and machinery in operation at the mines is, as stated above, £5,122,848; but this sum does not include the value of the large smelting plants in operation at Cockle Creek, and Woolwich, the copper reducing and refining plants at Lithgow and Newcastle, and the plant at the Eskbank iron-works. The total is exclusive also of value of plant used for conveying products from the mines to railway station or wharf, which, in the case of coal and shale mining, is set down at £1,145,000.

VALUE OF MINERALS PRODUCED.

The summary given below shows the value of the production of the various minerals during the last four years, also the total amount since their first discovery:—

Mineral.	Value.				
	1907.	1908.	1909.	1910.	To end of 1910.
	£	£	£	£	£
Gold (native ores only) ...	1,050,730	954,854	869,546	802,211	57,991,493
Coal	2,922,419	3,353,093	2,618,596	3,009,657	62,260,508
Silver and silver-lead ...	3,915,946	2,160,195	1,653,615	1,861,479	52,296,959
Copper, Matte, and Ore ...	727,774	562,812	424,737	486,257	10,614,209
Tin and ore	293,305	205,447	211,029	228,156	8,682,446
Kerosene Shale	32,055	26,067	23,617	33,896	2,251,081
Zinc (Spelter and Concentrates)	536,620	600,883	1,041,280	1,289,634	4,358,691
Coke	159,316	199,933	137,194	189,069	1,791,876
Noble Opal	79,000	41,800	61,800	66,200	1,237,899
Lead (pig, &c.)	374,182	186,746	186,073	248,561	1,526,597
Limestone flux	16,162	14,779	13,851	16,946	679,207
Antimony and ore	46,278	1,141	711	1,450	302,859
Bismuth	5,268	2,017	1,624	2,004	125,527
Diamonds	2,056	1,358	3,959	2,881	114,343
Chrome iron ore	105	.....	.....	.....	101,108
Alunite	5,115	2,705	8,791	2,840	102,048
Ironstone flux	7,707	6,199	3,471	1,321	79,996
Pig iron	60,550	98,777	100,357	161,948	421,633
Wolfram	26,235	6,742	11,249	16,258	87,795
Scheelite	23,781	11,082	14,618	15,747	88,958
Molybdenite	3,564	929	3,249	5,667	29,739
Platinum	1,014	439	1,720	1,418	22,131
Iron oxide	1,961	1,857	4,948	714	23,608
Cobalt ... ..	.....	.....	55	55	8,065
Manganese ore ... ..	.....	7	.....	.....	1,662
Sundry minerals	4,147	4,287	7,120	10,801	146,695
Total Value	£ 10,295,290	8,384,149	7,403,210	8,455,170	205,347,133

The decrease in the mineral production since 1907 is due to the low prices of metal and the closing of important mines in 1909, owing to labour troubles, which most seriously affected coal, coke, silver, lead, and copper.

The output during 1910 showed an increase of £1,051,960 as compared with the yield of 1909, which is gratifying when it is considered that the prices of the industrial metals was not generally favourable, and that work was interrupted at all the leading mines during the first two months on account of the coal strike.

At the end of 1910 the State had produced various minerals of the total value of 205 millions sterling. These figures differ slightly from those issued by the Mines Department, because such items as scrap-iron, Portland cement, and lime have been included in the report of the Department, but omitted in preparing the above statement, as these products are considered in connection with the statistical returns of manufactories and works. For the sake of comparison, however, the following table shows the value of each of the items mentioned for the same periods as shown in the previous summary:—

Article.	Value.				
	1907.	1908.	1909.	1910	To end of 1910.
	£	£	£	£	£
Iron made from scrap	118,082	19,447	6,000	.....	1,416,030
Portland cement	144,548	184,400	202,200	251,110	1,155,835
Lime	19,458	21,610	24,283	30,189	200,531
Total	282,088	225,457	232,483	281,299	2,772,396

GOLD.

Amongst the metals which occur in the State, gold occupies the foremost place, both on account of the quantity which has been raised and of the influence of its discovery on the settlement of the country.

Native gold is the only true mineral species of the metal which has been found in New South Wales, and was first met in easily-worked alluvial deposits. These deposits, until recent years, attracted a large number of miners, as the gold is obtained without costly appliances; but however rich they may be, alluvial deposits are very soon exhausted, their area generally being of limited extent.

Although the alluvial deposits discovered in the early days have been practically abandoned, there is ample evidence that only the surface of the country has been touched. The search for gold has been prosecuted for more than half a century, and still new fields and fresh deposits are being discovered. The gold formation is very widely diffused throughout the State, as may be gathered from the fact that the fields of Albert, Delegate, and Ballina are between 600 and 700 miles distant from each other; and it has been estimated that the extent of country covered by formations in association with which gold always occurs, exceeds 70,000 square miles, whilst it has also been found in strata where its presence was never suspected. A considerable portion of this area has not yet been tested by the miner.

Gold is found also in quartz-veins, occurring in older and metamorphic rocks, such as argillaceous slates, chloritic and talcose schists, as well as granite, diorite, serpentine, and porphyry. Vein gold is associated more commonly with iron pyrites, though found with copper, lead, zinc, and silver ores, and also in asbestos. But the extraction of gold from quartz-veins requires extensive machinery and gold-saving appliances, involving

an outlay of capital such as the ordinary miner seldom possesses; consequently this branch of mining is generally carried on by companies.

It would be difficult to name a part of the State in which gold is not found, as the precious metal appears throughout the greater portion of the territory, and there is ample evidence that there exist deposits which will offer to the prospector or the miner a profitable field of employment for many years.

Below will be found the quantity and value of the gold produced during each quinquennial period since 1851, and for each of the last five years. New South Wales gold which was received at the Sydney Mint for coinage in 1910 amounted to 128,777 oz., of the gross value of £442,706, the average price being £3 8s. 9d. per oz.

Period.	Quantity.	Value.
	oz.	£
1851—1855	1,920,200	6,338,257
1856—1860	1,360,763	5,192,326
1861—1865	2,233,001	8,606,290
1866—1870	1,309,911	5,069,812
1871—1875	1,613,049	6,210,345
1876—1880	640,210	2,366,310
1881—1885	626,931	2,333,358
1886—1890	546,954	1,973,183
1891—1895	1,176,325	4,258,462
1896—1900	1,691,012	6,073,658
1901—1905	1,353,526	4,813,285
1906	302,556	1,078,866
1907	289,043	1,050,730
1908	261,683	954,854
1909	238,047	869,546
1910	224,815	802,211
	15,788,026	57,991,493

Thus the value of the gold won amounts to 58 millions; and although the annual yield is now considerably less than that of either silver or coal, yet gold divides with coal the importance of premier position in respect of the total value of production, and exceeds the output of silver by nearly six million pounds worth, as at the end of 1910. From returns just available it appears that the value of gold produced in 1911 was £769,353.

The introduction of the systems of dredging and sluicing has awakened considerable activity in certain districts, where gold is being saved from the beds of rivers and creeks, and also from wet lands where the ordinary alluvial miner experienced considerable difficulty in working. The initial cost of these undertakings is heavy, but, on the other hand, the large quantity of material that can be treated at a small cost, and the saving in labour, more than compensate for it. With the present improved appliances it is possible to treat profitably alluvial drifts containing only 1 or 2 grains to the ton, while a large percentage of gold, and particularly of fine gold, is obtained by operating over alluvial drifts worked in a crude way.

In 1900, large areas were taken up for dredging for gold and tin, and notwithstanding that many of the dredges were working only for short periods in the year, results were very satisfactory. The following table demonstrates the progress made since the inauguration in that year of dredging in this State:—

Year.	Area under Lease at 31st Dec.	Gold.		Stream-tin.	
		Quantity.	Value.	Quantity.	Value.
	acres.	oz.	£	tons.	£
1900	6,943	8,882	33,660	.....	.....
1901	8,702	23,585	89,628	49	3,542
1902	11,719	25,473	97,891	110	8,300
1903	9,015	27,237	104,303	244	20,100
1904	9,855	32,345	123,656	319	26,180
1905	13,571	35,388	136,090	532	50,904
1906	15,595	36,649	141,101	1,032	120,661
1907	16,614	39,946	153,498	1,692	176,212
1908	16,117	40,890	161,059	1,562	129,952
1909	11,132	36,168	138,626	1,677	146,842
1910	16,442	31,487	121,741	1,607	158,467
Total ...	...	338,050	1,301,253	8,824	841,160

This system of mining has made steady progress during each year of the period, the increase in the number of dredges in operation, coupled with a better appreciation of local conditions, contributing materially to this satisfactory result.

The area leased for dredging at the 31st December, 1910, was 16,442 acres, as compared with 6,943 acres in 1900; and during the interval the number of dredges in operation increased from 22 to 70, the value of the latter being set down at £364,255. Araluen is the principal centre of gold dredging operations, and here, during the past eleven years, gold to the value of £521,970 has been obtained. The other districts which have contributed are Adelong, Stuart Town, Sofala, Wellington, Tumberumba, Nerrigundah, Nundle, and Hill End.

The returns from twenty-one "bucket" dredges show that 4,910,968 cubic yards of material were treated, the gold won amounting to 20,410 oz., valued at £79,724, or an average of 1·99 grains, worth 3·90d. for every yard. The returns of seven "pump" dredges show that 1,632,438 cubic yards of material were treated, and yielded 10,277 oz. of gold, valued at £38,996, or an average of 3·02 grains, worth 5·73d. per cubic yard.

The number of men employed in alluvial and in quartz-mining during the last ten years, and the production from each branch of the industry, are stated below. The particulars of production are based on information obtained in the various localities, but owing to the non-receipt of detailed returns in some instances, and to the difficulty in obtaining accurate data respecting all the gold won, the quantity of the metal, as returned by the wardens and mining registrars, does not agree with the

total amount actually recorded. The quantities of quartz and alluvial, which are approximate, are considered sufficiently accurate for practical purposes:—

Year.	Number of Miners.			Production.		
	Alluvial.	Quartz.	Total.	Alluvial.	Quartz.	Total.
	No.	No.	No.	oz.	oz.	oz.
1901	5,409	6,655	12,064	57,293	156,396	213,689
1902	5,434	5,176	10,610	55,349	134,967	190,316
1903	5,906	5,341	11,247	69,413	226,365	295,778
1904	5,253	5,395	10,648	79,040	245,956	324,996
1905	5,091	5,218	10,309	80,512	248,235	328,747
1906	4,255	4,561	8,816	78,690	223,866	302,556
1907	3,250	4,218	7,468	76,478	212,565	289,043
1908	2,851	3,512	6,363	62,390	199,293	261,683
1909	2,384	3,201	5,585	55,435	182,612	238,047
1910	2,355	2,892	5,247	51,681	173,134	224,815

These figures show clearly that gold-mining has not received much attention from capitalists and miners during the past decade. There has been a great decrease in the number of claims and small gold-mines worked which hitherto have in the aggregate contributed a large output. The pastoral and agricultural industries have absorbed many men from the ranks of the gold miners, whilst the large railway and other constructional works have also afforded steady and remunerative employment to those skilled as miners, and in other branches of the mining industry there has been a demand for miners on wages which, at times, could not be met. The same causes are responsible for comparatively little prospecting being done. All the men employed in quartz-mining are Europeans, but on alluvial fields 125 Chinese found occupation in 1910.

The principal places of alluvial gold-mining are the Bathurst and Mudgee districts; the country watered by the various feeders of the Upper Lachlan; the Braidwood, and Tumut and Adelong districts; and in the north of the State, the New England district. The principal quartz veins worked in New South Wales during 1910 are situated near Adelong, Armidale, Bathurst, Cobar, Forbes, Hillgrove, Orange, Pambula, Parkes, Peak Hill, Wellington, and Wyalong.

The districts which produced the largest quantities of gold during 1910 were:—

District.	Ounces.
Cobar (including Canbelego and Mt. Drysdale)	68,534
Wyalong and West Wyalong	9,091
Adelong	10,495
Wellington	12,869
Araluen	10,550
Hillgrove (including Metz)	2,767
Murrumbarrah	5,432
Braidwood	4,669
Peak Hill	6,393

In addition to the Mount Drysdale gold-field, in the Cobar district, discovered in 1893, the most important find of recent years was made at Wyalong, in the Lachlan district. For the period 1897-9 the production of Wyalong was the highest from any gold-field; but the yearly output

since 1900 has been exceeded by that of the Cobar and Mount Drysdale field. Since 1908 there has been a marked decrease in the output from the Wyalong mines; the yield has fallen below those, obtained chiefly by dredging, in the Adelong, Wellington, and Araluen districts.

The Cobar and Mount Drysdale district now holds the premier position as a gold-field, 35 per cent. of the production during 1910 being obtained from this district. The annual gold yield for the Cobar district since 1900 is shown below:—

Year.	Quantity.	Value.	Year.	Quantity.	Value.
	oz.	£		oz.	£
1900	44,676	157,108	1906	68,685	224,052
1901	42,299	145,146	1907	58,399	228,981
1902	26,956	90,209	1908	82,474	271,682
1903	79,860	266,355	1909	78,206	246,567
1904	69,140	262,213	1910	68,534	260,254
1905	70,109	230,386			

The low yield in 1902 was due to the cessation of work at most of the mines for varying periods on account of drought, and the decreases exhibited in 1904 and subsequent years, when compared with 1903, were caused by the restricted operations of the Cobar gold-mines, where the number of persons employed were considerably reduced, pending the adoption of another method for economically treating the gold-copper ore now in sight. For this purpose additional machinery was erected in 1908, and the result of its operations is shown in the increased output. The figures for 1909 were not so satisfactory, and the production of gold was affected by the cessation of smelting operations at the Great Cobar mine owing to industrial troubles.

The gold found in New South Wales is never absolutely pure, but contains traces of other metals, such as copper, iron, and bismuth, and often a fair percentage of silver, and to the presence of silver its light yellow colour is due. New South Wales gold is generally lighter in colour than Victorian, but is of a deeper yellow than that found in the fields of Southern Queensland. Its specific gravity is about 17·5.

The average weight of the metal obtained per miner in 1910 was 42·85 oz., as compared with 41·01 oz. in the previous year. The values of these quantities are £152 17s. 9d. and £155 13s. 10d. respectively for each miner engaged, and compare very favourably with the averages obtained during the past ten years, namely 31·35 oz. per miner, valued at £108 6s. 1d. These figures do not represent the total earnings of the men engaged in gold-mining, many of whom follow other pursuits during a portion of the year; further, there were several new fields which so far have yielded very small returns, and a number of men were engaged in prospecting.

The number of fatal accidents in gold-mines during 1910 was four. Two of the men who thus lost their lives were engaged in auriferous quartz-mining, and two in alluvial. Seven serious accidents occurred, of which five were in quartz-mines.

SILVER.

Until the year 1882 the quantity of silver raised in New South Wales was very small. In that and following years extensive discoveries of the metal, associated principally with lead and copper ores, were made in various parts of the State, notably at Boorook, in the New England district, and, later on, at Sunny Corner, near Bathurst, and at Silverton, Broken Hill, and other places on the Barrier Range.

The argentiferous lead ores of the Barrier Ranges and Broken Hill districts of New South Wales have attracted attention more than any other. This rich silver-field, which was discovered in 1883 by a boundary-rider on Mount Gipps run, extends over 2,500 square miles of country, and has developed into one of the principal mining centres of the world. It is situated beyond the River Darling, and on the confines of South Australia. In the Barrier Range district, the lodes occur in Silurian metamorphic micaceous schists and banded gneisses, intruded by granite, porphyry, and diorite, and traversed by numerous quartz reefs, some of which are gold-bearing. The Broken Hill lode is the largest as yet discovered; it varies in width from 10 feet to 200 feet, and may be traced for several miles, the country having been taken up all along the line of the lode, and subdivided into numerous leases, held by mining companies and syndicates.

The total value of minerals exported from the Barrier district during 1910 was £2,432,528, distributed as follows:—Silver-lead ore and concentrates, 292,055 tons, £1,479,921; copper ore, 500 tons, £358; zinc concentrates, 385,130 tons, £952,249.

The production of silver and of lead are largely influenced by the prices of those metals in the markets of the world. Thus, in 1906 and 1907, when prices were high, the number of men employed was higher than at any previous time. In 1908 there was a considerable fall in the prices, and in 1909 they were again lowered.

Zinc recovery is the most important question at the present time, and it is satisfactory to note that the output of zinc concentrates during 1910 amounted to 385,130 tons, valued at £952,249. In 1909 the output was 303,487 tons, valued at £763,229.

The question of determining the metallic contents of the silver and silver-lead ores mined in this State has always been extremely difficult, owing to the absence of reliable data, also because only a small percentage of the ore won is treated within New South Wales. For the past six years, however, the Department of Mines has collected from the various mine managers, smelting companies, and ore buyers in Australia particulars of the metallic contents of all New South Wales ores treated, the results being shown below:—

Contents, &c.	1905.	1906.	1907.	1908.	1909.	1910.
Silver (fine oz.) ...	6,804,934	5,575,410	5,921,457	6,484,288	3,717,016	5,196,323
Lead (tons) ...	93,182	79,925	79,870	103,371	64,821	94,818
Zinc (tons) ...	544	1,008	984	1,065	.....	489
Value of above £	2,131,317	2,112,977	2,228,420	2,008,410	1,176,394	1,755,220

In addition to the ore treated within the Commonwealth, the results of which are shown above, concentrates are exported to Europe for treatment. The quantity and value of these, together with the estimated gross silver, lead, and zinc contents, based on average assays, are shown hereunder:—

Year.	Concentrates, &c., exported.		Estimated Metallic contents.		
	Quantity.	Amount received.	Silver.	Lead.	Zinc.
	tons.	£	oz.	tons.	tons.
1905	270,474	1,181,720	3,480,561	69,044	30,637
1906	165,151	1,876,834	3,111,013	58,683	33,427
1907	337,823	3,574,775	6,228,225	111,830	76,645
1908	330,812	2,400,997	5,499,381	69,501	113,853
1909	409,438	2,707,680	6,867,775	90,307	144,018
1910	566,959	3,180,850	7,608,336	85,035	184,408

In connection with the above figures, it should be mentioned that, although the metallic contents are based on average assays, it is impossible to say what proportion of the bulk quantities was recovered. In the case of zinc contents the quantities have only been estimated when payment is allowed for them.

The greatest achievement in connection with silver-mining in this State is the profitable extraction of zinc from the immense heaps of tailings which have accumulated since the opening of the Broken Hill mines about twenty-eight years ago. The formation of a company to recover the zinc contents of large quantities of tailings, and the steps taken by other mining companies have added greatly to the vast wealth of minerals extracted from this field, and indicate this State as one of the principal producers of spelter in the future.

The estimated quantities of silver, lead, and zinc contained in the sulphide ores won during the last eight years are as follows:—

Year.	Silver.	Lead.	Zinc.
	fine oz.	tons.	tons.
1903.	8,226,201	121,999	14,911
1904	10,696,725	165,545	22,617
1905	10,285,495	162,226	31,181
1906	8,686,423	138,608	34,435
1907	12,149,682	191,700	77,629
1908	11,983,669	172,872	114,918
1909	10,584,791	155,128	144,018
1910	12,804,659	179,853	184,897
	85,417,645	1,287,931	624,606

This State, however, is not entitled to take credit for the full value of the finished product, as large sums are expended outside New South Wales in extracting the silver, lead, and zinc. For this reason, the production of silver and lead is set down at the net value of the quantities exported as declared to the Customs authorities.

The quantity and value of silver and silver-lead ore exported from New South Wales to the end of 1910 are shown in the following table:—

Period.	Silver.		Silver-sulphides, Silver-lead, and Ore.			Total Value.
	Quantity.	Value.	Quantity.		Value.	
			Ore.	Metal.		
	oz.	£	tons.	tons.	£	£
To 1885	1,730,297	382,884	7,074	191	237,810	620,694
1886-1890	2,481,253	464,081	165,756	94,002	6,478,515	6,942,596
1891-1895	3,009,187	445,873	663,754	231,847	12,615,432	13,061,305
1896-1900	2,352,092	269,663	1,771,983	86,005	9,592,856	9,862,519
1901-1905	4,154,020	445,051	1,877,515	108,353	8,910,586	9,355,637
1906	284,994	36,431	349,720	22,218	2,826,542	2,862,973
1907	2,043,887	257,314	413,720	20,360	3,658,632	3,915,946
1908	2,490,163	253,920	358,730	.....	1,906,275	2,160,195
1909	1,718,005	168,974	259,306	.....	1,484,641	1,653,615
1910	1,773,913	175,775	317,697	.....	1,685,704	1,861,479
Total...	22,037,811	2,899,966	6,195,255	562,976	49,396,993	52,296,959

The production in 1909 was much lower than in previous years; this was a result of the miners' strike which extended over the first five months and involved, principally, two mines which hitherto have contributed a large proportion of the annual production. There was an improvement

in 1910, although productive work was not entered upon in the parent mine, the Proprietary, throughout the year, and in the opening week's operations had to be suspended in many instances on account of the coal strike.

As the bulk of the silver has been exported in the form of silver-lead bullion and ore, it is impossible to ascertain the quantity of pure silver won except for the last eight years. The net value of the ores won during these years is set down at £18,515,203, and from the tables already given it will be seen that the estimated gross silver and lead contents amounted to 85,417,645 oz. fine and 1,287,931 tons respectively; but owing to the absence of similar data for previous years, also to the great improvements effected during recent years in the method of extraction and treatment of the ores generally, it is impossible to state with any degree of accuracy the metallic contents of the total production of the State.

Owing to the steady fall in the price of the metal, which had already set in before the opening of the Broken Hill mines, and which, after a slight recovery in 1890, has continued with slight fluctuations, the value of the output has greatly diminished. In 1890 the price of silver was 47½d. per oz. standard; in 1893, when the Indian mints were closed, the price was 35½d., and this fell to 29d. in 1894; in 1910 the average for the year was only 25d. per oz. The variations in the price of lead have likewise affected the value of the output. From 1904 nearly to the end of 1907 the price rose with corresponding benefit to the industry; but in 1908 the prices of silver, lead, and zinc dropped considerably, and have not since improved.

The number of miners engaged in silver and silver-lead mines in 1910 was 7,999, and the average value of mineral won per miner engaged was £232 14s. 3d. A comparison with the figures of the last ten years is afforded by the following table:—

Year.	Miners.	Value of Silver and Lead won.	
		Total.	Per Miner.
	No.	£	£ s. d.
1901	6,298	1,854,463	294 9 1
1902	5,382	1,440,179	267 11 10
1903	6,035	1,501,403	248 15 8
1904	7,071	2,065,540	292 2 3
1905	7,887	2,494,052	316 4 6
1906	9,414	2,862,973	304 2 5
1907	10,021	3,915,946	390 15 6
1908	7,560	2,160,195	285 14 10
1909	6,207	1,653,615	266 8 3
1910	7,999	1,861,479	232 14 3

The total number of accidents which occurred in the silver-mines of the State in 1910 was 37, 17 persons losing their lives, while 20 were seriously injured.

COPPER.

The principal deposits of this metal are found in the central part of the State, between the Macquarie, Bogan, and Darling Rivers. Deposits occur also in the New England and Southern districts, as well as at Broken Hill, thus showing a wide distribution.

The copper-mining industry is of considerable importance, and reached its highest point of production in 1906, when the value of the output was

£789,527. Until 1902, the year of highest production was 1883, when copper to the value of £472,982 was obtained; but in subsequent years the industry rapidly declined through the heavy fall in the price of the metal. In 1894, the production was valued only at £63,617, which marked the lowest point of depression in the copper market, the average price for the year being only £40 per ton. During the last decade copper mining has shown very satisfactory progress, and the average production is much in advance of that of any other decennial period. During 1904 the output was valued at £406,001, as compared with £462,640 for the previous year, the decrease being mainly due to the temporary cessation of productive work at one of the principal mines in the Burruga district.

With copper at a high price, it was to be expected that the mining for this metal would come in for considerable attention, and the annual production rose steadily till it reached a maximum in 1906. The decrease since that year is attributed mainly to the great fall in the price of copper. A number of small producing mines have been closed on account of the low prices and the want of railway communication. The value of the copper production during 1910 was £486,257, as compared with £424,737 for the previous year—an increase of £61,520. The mines in the Cobar district furnished the largest portion of this yield, the production from this centre during 1910 being £282,348. In 1909 the Lloyd copper-mine, in the Burruga district, was closed pending the provision of facilities for transport.

The copper lodes of New South Wales contain ores of a very much higher grade than those of many well-known mines worked in other parts of the world, and, with a fair price, should return satisfactory results. The net export of copper, which is taken as the production of the State, is shown below from the year 1858:—

Period.	Value.	Period.	Value.
	£		£
1858-1879	1,067,670	1906	789,527
1880-1884	1,554,326	1907	727,774
1885-1889	778,804	1908	502,812
1890-1894	454,765	1909	424,737
1895-1899	1,286,094	1910	486,257
1900-1904	2,014,040		
1905	527,403	Total ... £	10,614,209

Figures now available show that the output of the copper mines in 1911 was valued at £590,102, or an increase of £103,845 on that recorded for 1910.

The most important mines are those of Cobar, where the Great Cobar, which recommenced work early in 1894, is the principal mine.

The output of metals from this district during the last six years is shown hereunder:—

Metals.	1905.	1906.	1907.	1908.	1909.	1910.
	£	£	£	£	£	£
Gold ...	231,418	224,052	229,143	272,204	246,567	260,506
Silver ...	9,366	10,034	10,117	9,343	5,991	8,710
Copper ...	444,858	516,320	474,681	347,429	253,378	282,348
Lead ...	3,000	17,416	4,258	.....	.....	485
Totals ...	688,642	767,822	718,199	628,976	505,936	552,049

In other portions of the Cobar district considerable activity has been displayed. At Nymagee very satisfactory progress has been made, and copper to the value of £236,845 was produced during the three years, 1905, 1906, and 1907; but in 1908 operations were suspended, since the low market prices, combined with the heavy cost of transport, rendered it impossible to treat the ore profitably. Recent developments favour the opinion that the auriferous copper ores at the Cobar gold-mines and other mines will in future be worked in conjunction with one or other of the richer copper mines of the district. The net value of the output in 1910 of the Kylvie mine, at Adaminaby, was £83,373 and of the Cangai mine, in the Copmanhurst district, £41,477.

The latest available particulars show that at the works of the Electrolytic Refining and Smelting Company, Port Kembla, the production of metals in 1911 included 13,132 tons of electrolytic copper, obtained principally by the treatment of matte and ores obtained from the other States of Australia, chiefly from Queensland.

The total number of miners engaged in copper-mining in 1910 was 2,286, as against 2,024 in 1909, 2,745 in 1908, 3,764 in 1907, and 3,047 in 1906. It may be mentioned that the number of men finding employment in 1896 was only 810; this figure rapidly increased to 3,334 in 1900, but fell away to 2,964 in 1901, and to 1,699 in 1902. There were 7 fatal accidents recorded in copper-mining in 1910, and 9 miners were seriously injured.

TIN.

Lode tin occurs principally in the granite country, and stream tin under the basaltic formation, in the extreme north of the State—at Tenterfield, Emmaville, Tingha, and in other districts of New England. The metal has also been discovered in the Barrier district, at Poolamacca and Euriowie; near Bombala, in the Monaro district; at Gundle, near Kempsey; at Jingellic and Dora Dora, on the Upper Murray; and in the valley of the Lachlan; but in none of these districts has it been worked to any extent. Although the first discovery was made by the Rev. W. B. Clarke as far back as 1853, the opening of tin-fields did not take place until the year 1872. The value of production since that date has been as follows:—

Period.	Value.	Period.	Value.
	£		£
1872-1879	2,015,407	1906	255,744
1880-1884	2,194,533	1907	293,305
1885-1889	1,415,374	1908	205,447
1890-1894	677,392	1909	211,029
1895-1899	342,503	1910	228,156
1900-1904	617,446		
1905	226,110	Total...£	8,682,446

The figures now available for the year 1911 show an increased value on the output of 1910, as in the year 1911 the value was £307,089.

Tin has contributed in a very considerable degree to the total production of the mineral wealth of the State, and in point of value its aggregate yield stands in the fifth place, next to coal, gold, silver, and copper. From the opening of the fields the production increased rapidly until 1881, when in value it was almost equal to the output of gold for the year, and but slightly behind coal. During the interval from 1881 to 1902 the industry experienced several vicissitudes, chiefly owing to dry weather and fluctuations in the price of the metal.

The increased production since 1902 is due to the activity which has characterised tin-mining on the various fields throughout the State, owing to the satisfactory prices obtained. But in the years 1908 and 1909 the value of the output showed a considerable decrease, due to the drop in the market price and to the lesser output of ore principally from the dredges in the Tingha division. In 1910 the value of production was £228,156, as compared with £211,029 in the previous year; the increase was due to the high price ruling, as the quantity produced was less than in 1909. A feature of the industry is the success achieved by the operations of the dredges, which produced nearly 70 per cent. of the total yield during 1910. The principal leads worked during the year were at Tingha; at Vegetable Creek, near Emmaville; at Deepwater; and at Wilson's Downfall.

Dredging for tin-ore has become an important industry; the known alluvial deposits, however, are being steadily depleted, and it is evident that unless fresh fields be opened the yields from this source will show a constant diminution. During 1910 seventeen pump dredges, operating on the stanniferous gravels in the Tingha division, recovered 660 tons of stream tin, valued at £66,519. Eight plants operating in the Emmaville division obtained 702 tons of stream tin as the result of the year's work; the value is set down at £69,074. The dredges operating in the Wilson's Downfall division recovered 147 tons, valued at £13,678. There were also several smaller plants operating in the Deepwater and Bendemeer divisions; and, in addition, a quantity of stream tin was saved by several of the gold dredges. In all, tin-ore to the extent of 1,607 tons, valued at £158,467, was recovered during 1910, an increase in value of £11,625 being shown as compared with the output from this source in the previous year. Within the thirty-nine years that have elapsed since the opening of the tin-fields, the value of the net export, which is regarded as the production, has been £8,682,446.

In the alluvial tin-fields of Tingha and Emmaville, the number of Chinese engaged in this industry has in some years greatly exceeded that of the Europeans. In 1910, however, the total number of tin-miners was 2,028, of whom only 160 were Chinese; and in the previous year 2,037 were employed, 1,688 being Europeans and 349 Chinese.

One fatal accident occurred during 1910 in tin-mining.

IRON AND IRON ORES.

Iron is widely diffused throughout the State, and occurs principally in the form of magnetite, brown hematite or goethite, limonite, and bog-iron; deposits of chrome iron are also found. Magnetite is the richest of all the iron ores, and, when pure, contains a little over 72 per cent. of available metallic iron, though it is not often found reaching this very high percentage. The results of a number of analyses made from deposits at Brown's Creek, in the county of Bathurst, where veins have been opened out, show that the samples of ore yielded from 48.83 to 61.30 per cent. of metallic iron.

Brown hematite or goethite occurs in very extensive deposits in the Blue Mountain and Macquarie Ranges, the principal centres explored being situated at Mittagong, Picton, Berrima, Cadia (near Orange), Lithgow Valley, Wallerawang, in the Rylstone and Mudgee districts, and in the vicinity of Port Stephens. The results of a number of analyses of this kind of ore denote that it is very rich in metallic iron, containing a proportion of 42.69 to 64.48 per cent., and in the majority of cases over 45 per cent. of metal. A sample of hematite from the Maitland district contained 60.83 per cent. of metallic iron, and another from

Mount Pleasant, near Wollongong, analysed during 1891, gave 54·28 per cent. of iron. The value of these deposits is enhanced by their almost invariable occurrence in proximity to limestone and coal beds. It is fortunate, also, that the main lines of railway pass through the regions where the deposits are most easily worked.

Limonite—a variety of brown hematite—occurs principally at Lithgow, Eskbank, and Bowenfels, in the Blue Mountains; in several parts of the Hunter River coal-field; and at Bulli, in the Illawarra district. This ore is usually found very rich in metal, and contains an average of over 50 per cent. of iron, while the English clay bands, which are mostly carbonates, contain only about 30 per cent. of metallic substance. It occurs in lenticular layers of no great extent, in the Coal Measures. Bog-iron ore, which is impure limonite, is found principally at Mittagong; and assays of this ore gave a percentage of metal of more than 45 per cent.

The following table, taken from a report furnished during 1905 by Mr. E. F. Pittman, Government Geologist, gives the description and estimated quantity of iron-ore available in the various districts of New South Wales where the deposits occur:—

District.	Description of Ore.	Estimated minimum quantity of Ore.
		tons.
Bredalbane	Brown ore and hematite	700,000
Cadia	Specular hematite, magnetite, and carbonate ore.	39,000,000
Carcoar	Hematite and brown ore	3,000,000
Chalybeate Spring — Deposits of Southern District.	Brown ore	1,510,000
Cowra	Magnetic ore	100,000
Goulburn	Brown ore	1,022,000
Gulgong	Magnetic ore	120,000
Mandurama and Woodstock	Brown ore	609,000
Marulan	Brown ore and hematite	40,000
Mudgee	Brown ore with manganese	150,000
Newbridge, Blayney, and Orange	Brown ore and magnetic ore	150,000
Queanbeyan	Magnetic ore	1,000,000
Rylstone and Cudgegong	Brown ore	443,000
Wallerawang and Piper's Flat	Brown ore	200,000
Williams and Karuah Rivers	Titaniferous magnetic ore	1,973,000
Wingello	Aluminous ore	3,000,000
	Total	53,017,000

The Cadia ironstone beds, 14 miles from Orange, have proved the most extensive yet examined. The ore consists of two classes, oxidised and unoxidised, the former of which consists of hematite and magnetite, and contains from 57 to 61 per cent. of metallic iron. A large proportion of the ore is of excellent quality and suitable for the manufacture of steel by the ordinary Bessemer and other acid processes, and compares favourably with some of the best American ores.

The deposits at Carcoar include brown ore, hematite, and magnetite. It is estimated that at least 3 million tons of ore are in sight, and it is probable that the deposit is capable of yielding 10,000,000 tons, or even a larger quantity, the ore containing about 52·67 per cent. of metallic iron.

A large amount of iron ore has been raised from the deposits situated in the Marulan, Goulburn, Bredalbane, Mittagong, and Carcoar districts,

and despatched to the smelting works at Dapto and Cockle Creek, where it has been used as flux, the gold contents of the ore helping to defray the extra cost of railway carriage. The estimated quantity of ironstone flux raised during the last five years is shown in the following table:—

Year.	Quantity.	Value.
	tons.	£
1906	935	723
1907	10,659	7,707
1908	8,087	6,199
1909	4,339	3,471
1910	1,648	1,321

There has been a large decrease in the output since 1903, due partly to the closing down of the smelting works at Dapto. Only 935 tons, valued at £723, were obtained during 1906, and used at Cockle Creek Smelting Works. The establishment of ironworks at Eskbank resulted in a greatly increased output in 1907. The requirements of the smelting companies, owing to suitable ores being obtained, were on a lessened scale during the last two years, and the quantity of ironstone flux consequently shows a decrease. Parcels of iron oxide are still sent from the Fitzroy and other ironstone deposits in the Mittagong and Port Macquarie districts to the various gas-works of the Australian States and New Zealand, where it is used in purifying gas.

BOUNTY PAID ON IRON AND STEEL.

The bounty paid by the Commonwealth Government, in terms of the Manufactures Encouragement Act, on iron and steel made from ores mined in this State during the years 1909 and 1910, is as follows:—

Description.	Year 1909.		Year 1910.	
	Tonnage.	Bounty Paid.	Tonnage.	Bounty Paid.
		£		£
Pig-iron	23,179	13,908	40,326	24,196
Puddled bar-iron	1,939	1,163	3,384	2,036
Steel	1,855	1,113	3,410	2,046
Total	26,973	16,184	47,120	28,278

ANTIMONY.

Deposits of antimony occur in various places, chiefly in the Armidale, Bathurst, and Rylstone districts; and at Bowraville, on the North Coast of the State. The principal centre of this industry is at Hillgrove, near Armidale. The output is confined mainly to this district, and is obtained principally in the course of mining for scheelite, with which the antimony is associated. The results of a number of analyses of antimony ore, made by the authorities of the Geological Museum, show from 16.5 to 79.45 per cent. of metal; but, notwithstanding these encouraging assays, the price has never been, until recently, sufficiently high to stimulate production to any extent. The satisfactory price of the metal, which rose to £25 per ton in May, 1906, caused the reopening of numerous long-abandoned claims, and mining operations were carried on with great activity throughout the year on the Hillgrove field, and also at Bowraville, where several leases have been secured. The value

locally of 50 per cent. ore during the first three months of 1907 was £25 per ton; by the end of May, however, the value had receded to £5 per ton; and with the exception of a sudden rise to £12 in October, it remained low. The supplies consequently fell off, and at the end of the year no ore was coming forward. The price has shown no improvement, and consequently very little work has since been done. Prospectors were successful in obtaining small quantities of ore in the Kookabookra, Uralla, Maitland, and Barraba divisions, and in the Copmanhurst district. Lodes have been opened and partly worked near Nambucca, Drake, Gulgong, and Razorback. The value of antimony raised during 1910 was enhanced by gold contents, and amounted to £1,450, as compared with £46,278 in 1907. The total quantity raised up to the end of 1910 is estimated at 16,426 tons, valued at £302,859.

MANGANESE.

Deposits of manganese ore have been discovered in various places. Pyrolusite, in the form of black oxide and manganese dioxide, occurs principally in the Bathurst districts and at Bendemeer. Wide veins have also been found in the Glen Innes district, near the Newton Boyd road. Some of the specimens analysed have yielded a very high percentage of metal; but the demand for manganese in the State is very small, and unless it increases, or until a foreign market is found, the rich deposits of this ore will remain comparatively untouched. The ore is found extensively in conjunction with iron in coal and limestone country, and often contains a small percentage of cobalt.

The value of manganese raised to the end of 1910 is stated at £1,662, the last year of production being 1908, when only 2 tons, valued at £7, were raised.

BISMUTH.

Bismuth is found associated with molybdenum and gold, in quartz-veins, chiefly in the neighbourhood of Glen Innes. The principal mines are situated at Kingsgate, the mineral occurring in a granite formation, associated with molybdenum, mispickel, and tin. The total quantity of this metal exported during 1910 was 6 tons, valued at £2,004. Rich argentiferous ores have been obtained, the lodes consisting of soft granular felspar matrix, impregnated with blotches of bismuth, molybdenum, and chloride of silver. The value of bismuth exported up to the end of 1910 was £125,527.

MOLYBDENUM.

Molybdenite, the principal ore of molybdenum, occurs most plentifully in pipe-veins at Kingsgate, near Glen Innes, and in the Jingera Mineral Proprietary mines at Whipstick, near Pambula; in both these localities it is associated with ores of bismuth. Molybdenum is used chiefly in the preparation of special steels, its influence being similar to that of tungsten, but it gives greater toughness, and the steel so treated is more readily worked when hot, and stands hardening better than tungsten steel. The output during 1910 was confined to the Kingsgate district, the quantity exported during the year being valued at £5,667, as compared with £3,249 in 1909.

PLATINUM.

Platinum and the allied compound metal iridosmine have been found, but so far in inconsiderable quantities, the latter occurring commonly with gold or tin in alluvial drifts. Mining operations were confined in 1910 to the Fifield gold-field, in the Parkes district, where the metal is

found associated with the gold in washdirt. The total yield of platinum for the year was 332 oz., as compared with 440 oz. in 1909. The Fifield platinum occurs in coarse, shotty grains. The quantity of platinum produced during 1910 was valued at £1,418, and to the end of that year, £22,131.

CHROMIUM.

Chromium, usually associated with serpentine, is found in the northern portion of New South Wales, in the Clarence and Tamworth districts, also near Gundagai; the principal mines are at Mount Lightning, in the Mooney Mooney Ranges, about 18 miles from Gundagai. The chrome mining industry is of recent date, but the low price obtainable has prejudicially affected the industry. The quantity produced during 1899—5,243 tons, valued at £17,416—is the highest recorded as the annual output. In 1900 the production fell to 3,285 tons, valued at £11,827, the decrease being due to the exhaustion of the smaller deposits. During 1907, only 30 tons, valued at £105, have been disposed of for use in the lining of furnaces. The mines were not worked during the last three years. The production up to 1910 was 30,663 tons, valued at £101,108.

OTHER METALS.

Mercury, in the form of cinnabar, has been discovered on the Cudgegong River, near Rylstone, and it also occurs at Bingara, Solferino, Yulgilbar, and Cooma. In the latter place the assays of ore yielded 22 per cent. of mercury. As an encouragement in the search for quicksilver ores, the Government has offered to pay a reward of £500 to the first person or company producing 50,000 lb. of quicksilver from ores raised in New South Wales. During 1903, 40 tons of ore were treated, yielding 1,010 lb. of quicksilver, valued at £126; but there has been no further production.

Deposits of cobaltiferous minerals have been found at Bungonia, Carcoar, and Port Macquarie; but the market for the metal is small, and no attempt has yet been made to produce it on a large scale. The only deposits worked during recent years are at Port Macquarie, where the ore occurs in nests or pockets in serpentine and the overlying clays resulting from its decomposition; but as the ore is of irregular occurrence, and does not permit of profitable working, operations were discontinued during 1904. An average sample assayed cobalt oxide 7.48, and nickel oxide 2.39 per cent. The output of cobalt during 1910 was valued at £55. The value of the total production to the end of 1910 was £8,065.

Tellurium has been discovered at Bingara and other parts of the northern districts, as well as at Tarana, on the Western railway line, though at present only in small quantities, which would not repay the cost of working. It has also been found at Captain's Flat in association with bismuth.

Selenium has been discovered at Mount Hope, also in association with bismuth.

Wolfram and scheelite, generally associated with other minerals, such as tinstone (cassiterite), bismuth, and molybdenite, occur in many districts. The deposits, as a rule, have been found too patchy for profitable working, and as the market is limited, very little has been done in the way of production. The steady demand that has existed during the last few years for tungsten ores has, however, stimulated the search for payable deposits, especially in the Peel, Uralla, and New England districts. Practically all the scheelite was produced in the Hillgrove district during 1909, the ore being of good quality and carrying a large percentage of tungstic acid. The price paid on this field during the year 1910

was £103 per ton for 70 per cent. ore. A small quantity was also obtained in the Tuena division. The value of 151 tons exported during 1910 was £15,747. Wolfram ore was obtained mainly in the vicinity of Deepwater and Emmaville. The quantity exported during 1910 was 166 tons, valued at £16,258.

Deposits of pigments are found near Mudgee and Dubbo, and also in the Orange district, where a fair quantity of the raw material, consisting principally of purple oxide and yellow ochre, has been produced.

MINERALS—COAL.

Coal constitutes the most important of the many mineral resources of the State, and the coal-fields are of much greater importance as to area and as to quality of the coal than in any other part of Australia. The area over which the mineral is distributed in this State extends to 28,000 square miles; but the limit within which the coal measures are considered payable is estimated at 16,550 square miles.

In the opinion of the Government Geologist, the quantity of coal underlying this area, down to a depth of 4,000 feet, is 115,347 million tons. This estimate allows for one-third loss in working; but no account has been taken of the coal measures of the Clarence basin, nor of the area to the west of a line stretching from Dubbo to Texas. The coal in these districts is probably suitable for local requirements; but its quality is not sufficiently good for the purposes of export, and it would be expensive to work, on account of the numerous bands of shale which occur in the seams.

At present the coal-mining industry is confined to those centres which, from their close proximity to ports of shipment and to the railway lines, afford ready means for distribution.

In 1826, the Australian Agricultural Society obtained from the Crown a grant of 1,000,000 acres of land, together with the sole right of working the coal-seams which were known to exist in the Newcastle district. Several mines were opened, with profitable results for a number of years; but it was not until the expiration, in 1847, of the monopoly enjoyed by the company, that the coal-mining industry showed signs of extensive development.

During that year the output of coal reached a total of 40,732 tons only, valued at £13,750. Six years afterwards the production was doubled, and the output has rapidly increased year by year, until coal-mining is now one of the staple industries of the State, the production for the year 1910 amounting to 8,173,508 tons, valued at £3,009,657, being 1,153,629 tons and £391,060 in value more than the preceding year. The output for 1910 is satisfactory in view of the unsettled condition of the coal trade in the opening months of the year owing to labour troubles. The average price secured was 7s. 4d. per ton. The total production to the end of the year 1910 was 163,018,561 tons, valued at £62,260,508.

In view of its wealth in coal, New South Wales possesses an immense advantage in the development of manufacturing industries, as it naturally follows that the largest coal-producing countries are the greatest manufacturers. Newcastle, the centre of the local coal trade, fitted with all the requirements of a busy port, is peculiarly well situated to supply the other Australian States and foreign countries; and the Government has erected extensive wharves, fitted with the latest appliances in cranes and other necessary machinery, to facilitate shipment.

The markets of the State are likewise supplied with excellent coal from the seams worked in the Illawarra district, the product of which is exported in large quantities.

The deposits which have been found in the Blue Mountains, near the line of railway, at Katoomba, Lithgow, Wallerawang, and elsewhere, supply a portion of the requirements of Sydney and other industrial centres in its neighbourhood, as well as part of the western districts of the State. Coal is also obtained in the Berrima district, whence a large quantity for consumption in the southern parts of the State is obtained.

The coal production during 1909 and 1910 was affected by a general strike of the miners on the 9th November, 1909. The collieries in the Western district resumed work on the 21st December, but the Southern mines did not resume coal-getting operations until the middle of March, 1910.

The number of coal-mines operated in New South Wales during the year 1910 was 141, which gave employment to 17,618 persons, of whom 13,290 were employed underground and 4,328 above. The average quantity of mineral extracted per miner was 615 tons, as against an average of 504 tons for the previous year, and 669 tons for 1908.

The quantity of coal raised in New South Wales and the number of coal-miners employed during each of the last ten years are stated below. Calculated on the total value of the production during the decade, the average quantity of 603 tons extracted yearly by each person employed underground represents a value of £210, and for the total number of persons employed, 469 tons, valued at £164. In 1910 the average value of production was £226 for each person employed underground, and £171 for each person employed in any capacity about the mines.

Year.	Persons employed in and about mines.	Persons employed underground.	Quantity of Coal raised.		Value of Coal raised.		
			Total.	Per person employed underground.	Total value.	Average value per ton.	Average value per person employed underground.
	No.	No.	tons.	tons.	£	s. d.	£
1901	12,191	9,644	5,968,426	619	2,178,929	7 4	226
1902	12,815	10,050	5,942,011	591	2,206,598	7 5	220
1903	13,917	10,910	6,354,846	582	2,319,660	7 4	213
1904	14,034	11,122	6,019,809	541	1,994,952	6 7	179
1905	14,019	11,054	6,632,138	600	2,003,461	6 1	181
1906	14,929	11,588	7,626,362	658	2,337,227	6 2	202
1907	17,080	13,369	8,657,924	648	2,922,419	6 9	219
1908	17,734	13,664	9,147,025	669	3,353,093	7 4	245
1909	18,168	13,915	7,019,879	504	2,618,596	7 5	186
1910	17,618	13,290	8,173,508	615	3,009,637	7 4	226
Average for 10 years	15,251	11,861	7,154,193	603	2,494,459	7 0	210

The output of coal for the year 1911 amounted to 8,691,604 tons, valued at £3,167,165, which is an increase of 518,096 tons, and £157,508 in value.

A very satisfactory feature of the coal trade is the increasing quantity taken for local use, indicative of greater industrial activity; the increase is due to the growing requirements for smelting and other purposes.

Northern District.—In the Northern or Hunter River District, the number of collieries in operation during 1910 was 97, employing 12,626 persons, 9,404 of whom were miners, wheelers, &c., employed underground. The quantity of coal raised amounted to 5,366,975 tons, valued at £2,178,952, or 66 per cent. of the whole production of New South Wales.

The following table shows the growth of the coal industry within the last ten years in the Hunter District; the number of men employed and the quantity of coal raised have increased steadily during the period:—

Year.	Persons employed in and about mines.	Persons employed underground.	Quantity of Coal raised.		Value of Coal raised.		
			Total.	Per person employed underground.	Total value.	Average value per ton.	Average value per person employed underground.
	No.	No.	tons.	tons.	£	s. d.	£
1901	9,157	7,258	3,999,252	551	1,669,519	8 4	230
1902	9,730	7,588	3,900,297	514	1,633,062	8 4	215
1903	10,461	8,161	4,410,565	540	1,783,409	8 1	219
1904	10,450	8,217	4,042,739	492	1,450,300	7 2	176
1905	10,505	8,265	4,645,742	562	1,473,095	6 4	178
1906	11,005	8,478	5,336,188	629	1,718,178	6 5	203
1907	12,486	9,692	6,058,580	625	2,231,901	7 4	230
1908	13,228	10,064	6,511,002	647	2,625,446	8 1	261
1909	13,286	10,102	4,801,361	475	1,990,217	8 3	197
1910	12,626	9,404	5,366,975	571	2,178,952	8 1	232

Southern and South-western District.—In this district there were in 1910 twenty-one collieries in operation, giving employment to 3,894 persons, of whom 3,024 were at work underground. These numbers exhibit an increase of 51 persons employed in and about the mines, and of 25 underground workers, as compared with those so engaged in 1909. There was an increase of 255,334 tons in the production, the total quantity raised during the year being 1,875,000 tons, valued at £576,261. Owing to the demand for southern coal for steam purposes, the trade of this district has greatly improved during recent years, and the increase would doubtless have been more pronounced but for the difficulty experienced in loading. To remove this drawback, the Government is making a harbour at Port Kembla, a few miles south of Wollongong, which, when complete, will enclose an area of 334 acres. An eastern breakwater is being carried out to a length of 2,585 feet; a northern breakwater is also under construction, and it is contemplated extending this to within 900 feet of the end of the eastern breakwater. These breakwaters will give a still-water harbour which can be used in any weather. The eastern breakwater is nearing completion, and the jetties from which coal is shipped are afforded considerable protection from the south-easterly and easterly gales that affect the coast.

The history of coal production in the Southern district for the last ten years may be gathered from the following table:—

Year.	Persons employed in and about mines.	Persons employed underground.	Quantity of Coal raised.		Value of Coal raised.		
			Total.	Per person employed underground.	Total value.	Average value per ton.	Average value per person employed underground.
	No.	No.	tons.	tons.	£	s. d.	£
1901	2,499	1,946	1,544,454	794	407,196	5 3	209
1902	2,545	1,988	1,588,473	799	458,851	5 9	231
1903	2,887	2,255	1,476,005	654	418,919	5 8	186
1904	3,044	2,450	1,558,383	636	436,640	5 7	178
1905	3,050	2,397	1,556,678	649	421,768	5 5	176
1906	3,249	2,540	1,783,395	702	494,871	5 7	195
1907	3,410	2,671	1,835,425	687	515,786	5 7	193
1908	3,587	2,863	1,929,236	674	570,022	5 11	199
1909	3,818	2,999	1,619,675	540	485,300	6 0	162
1910	3,894	3,024	1,875,009	620	576,261	6 2	191

Western District.—In the Western District, in 1910, there were 23 collieries in operation, giving employment to 1,098 persons, of whom 862 were at work underground. From the subjoined table, it is apparent that the output has largely expanded during the period under review, the increase being due to more regular work, and to the absence of labour troubles, which retarded operations in the earlier years, and caused the large decrease in 1909. In the early part of the year 1910 the coal from this district was in great demand, as the mines in the other districts were closed on account of the strike, the Western mines having resumed work in December, 1909.

The average quantity of coal raised per miner is much greater in the Western collieries than elsewhere in the State. This is due to a variety of causes, but chiefly to the greater thickness of the seams, the friable character of the coal, and the accessibility of the coal beds. In some cases the coal is worked by means of adits or tunnels, so that the facilities for winning the mineral are much greater than in the Newcastle mines, where shafts must be sunk in most instances. But though the output is greater per miner than in the other coal-mining districts, the price for hewing is lower, so that the earnings of the individual miner do not differ greatly wherever the mine is situated.

The following table shows the growth of coal production in the Western district during the last ten years. Situated in close proximity to the principal iron-fields of New South Wales, the prospects of these mines are extremely favourable since the manufacture of iron from the ore is now carried on in this part of the State:—

Year.	Persons employed in and about mines.	Persons employed underground.	Quantity of Coal raised.		Value of Coal raised.		
			Total.	Per person employed underground.	Total value.	Average value per ton.	Average value per person employed underground.
	No.	No.	tons.	tons.	£	s. d.	£
1901	535	440	424,720	965	102,214	4 10	232
1902	540	474	453,241	956	114,685	5 1	242
1903	569	494	468,276	948	117,332	5 0	238
1904	540	455	418,687	920	108,012	5 2	237
1905	464	392	429,718	1,096	107,698	5 0	275
1906	675	570	506,779	889	124,178	4 11	218
1907	1,184	1,006	763,919	759	174,732	4 7	174
1908	919	737	706,787	959	157,625	4 6	214
1909	1,064	814	598,843	736	143,079	4 9	175
1910	1,098	862	931,524	1,081	254,443	5 6	295

The following table shows the average price of coal per ton in the various districts for the last ten years; in the average for New South Wales, allowance has been made for the quantity raised in each district:—

District.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Northern ...	8 4	8 4	8 1	7 2	6 4	6 5	7 4	8 0	8 3	8 1
Southern ...	5 3	5 9	5 8	5 7	5 5	5 7	5 7	5 11	6 0	6 2
Western ...	4 10	5 1	5 0	5 2	5 0	4 11	4 7	4 6	4 9	5 6
New South Wales	7 4	7 5	7 4	6 8	6 0½	6 1½	6 9	7 4	7 5	7 4

ACCIDENTS IN COAL MINES.

There were 21 persons killed and 135 injured in coal and shale mines during 1910, the number of cases terminating fatally being 7 more than in the previous year. In the Western district 998,317 tons of coal and

shale were raised during the year without fatal accident. These figures are obtained from the official records of the Department of Mines; but the report of the Miners' Accident Relief Board shows that the cases of temporary disablement in the coal and shale mines, subject to the Accident Relief Act, numbered 3,420 during last year. A considerable majority of these cases were of a very trivial nature, and to include them in the returns would convey an erroneous idea that the mines of this State are abnormally liable to accident. This subject is treated also in the chapter dealing with "Social Condition." For the decennial period ended 1909, the average annual loss of life in the British coal-mines was 1·32 per thousand, or at the rate of 220,284 tons of mineral raised for every fatal accident. In the New South Wales collieries, for the ten years ended 1910, the rate was 1·71 fatal accidents per thousand miners employed, and 271,627 tons of coal were raised for every life lost.

The number of accidents in the coal and shale mines of New South Wales, with the proportion of miners to each fatal and non-fatal case, is given below, as well as the quantity of mineral raised to each life lost and person injured.

Year.	Accidents.		Number of miners employed to each person.		Number of tons of mineral raised to each person.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1901	17	207	730	60	354,306	29,098
1902	105	154	125	85	57,189	38,993
1903	13	121	1,086	116	491,509	52,807
1904	12	121	1,179	117	504,807	50,063
1905	24	115	589	123	277,932	58,003
1906	21	125	724	118	364,705	61,270
1907	17	160	1,021	108	512,074	54,408
1908	21	166	861	109	437,778	55,381
1909	14	142	1,326	131	504,899	49,779
1910	21	135	859	134	392,467	61,050
Average	26	145	586	107	271,627	49,779

The abnormal figures for 1902 were due to the explosion at Mount Kembla, which caused the deaths of 95 persons and injuries more or less serious to 14 others. The experience of coal-mining in this State with respect to accidents bears very favourable comparison with that of other countries.

The average annual number of fatalities in the coal and shale mines of various countries for the last available five years will be seen from the following table:—

Country.	Average Annual Number of—		Mortality per 1,000 Employed.
	Persons Employed.	Lives Lost.	
United Kingdom	936,629	1,261	1·35
United States	646,344	2,372	3·67
Prussia	534,529	1,146	2·14
France	190,509	407	2·14
Austria	119,563	151	1·26
Belgium	140,137	137	0·98
British Columbia	5,159	23	4·38
Nova Scotia... ..	11,926	31	2·57
New South Wales	17,106	19	1·10

MINERS' ACCIDENT RELIEF FUND.

The New South Wales Miners' Accident Relief Act, which came into force on the 1st January, 1901, applies to all mines in or about which fifteen or more persons are employed.

A sum of 4½d. per week is deducted from the wages of each employee and paid by the manager of the mine to the treasurer of a committee for the mine. The committee for a mine consists of (1) an Inspector of Mines appointed by the Minister, (2) three persons appointed by the employees, and (3) two persons appointed by the owner or manager. The committee considers all applications for relief in cases of accident, and votes such allowances as appear warranted under the provisions of the Act.

The fund is administered by a board consisting of six members, one of whom is the chairman, and the others representative of (1) owners of coal and shale mines, (2) owners of other mines, (3) persons employed in or about coal and shale mines, (4) persons employed in or about other mines, and (5) the Department of Mines.

Payments into the fund consist of (1) the balance of deductions from wages unexpended by the committees in payment of allowances, (2) a quarterly contribution by the owner or owners of each mine equal to 50 per cent. of the aggregate amount deducted from the wages at such mine, and (3) a subsidy from the Consolidated Revenue Fund equal to the amount contributed by owners of mines. The Board makes advances to committees in cases where the sums deducted from wages are inadequate to meet allowances payable. An amending Act passed in 1910 admits mines employing less than fifteen, but more than five persons, to the benefits of the fund.

The Registrar of Friendly Societies valued this fund as at 30th April, 1905, and the outcome revealed such flourishing conditions that the benefits were increased in the various scales, and are now payable as follows:—

(I) In cases of fatal accident—(1) Funeral allowance, £12; (2) a weekly allowance of 10s. to the widow or other adult dependent upon the deceased for support; and (3) a weekly allowance of 3s. in respect of each child of the deceased or of each child of an adult dependent, payable until such child attains the age of 14 years.

(II) In cases of disablement—(1) A weekly allowance of 15s. until able to resume work; and (2) where disablement is permanent, a weekly allowance of 3s. in respect of each child under the age of 14 years.

For the period 1900-10 during which the Act has been in operation, the average annual number of employees contributing has been 24,001, the amount contributed being £234,015. During the same period the mine owners have paid £112,375, and Government subsidy to the extent of £112,375, and interest amounting to £44,245, have been received; the sum of £230,916 has been disbursed in allowances. Accumulated funds, amounting to £257,000, have been invested in New South Wales Funded Stock.

The result of the second quinquennial valuation, by the Registrar of Friendly Societies, of the Fund as at the 30th April, 1910, showed that the liabilities amounted to £219,903, and the assets to £246,921, the surplus of assets being £27,018. The beneficiaries on the Fund numbered 1,341 at the valuation date; 287 adults and 435 children were drawing allowances as the result of fatal accidents; 186 miners and 153 children in consequence of permanent disablement; the balance, 280, being miners temporarily disabled.

At 31st December, 1910, the beneficiaries in receipt of allowances consisted of 306 adults and 466 children by reason of fatal accidents, and 164 persons permanently disabled, upon whom 155 children were dependent.

PRODUCTION OF COAL.

The following table shows the quantity and value of coal raised from the earliest record to the close of 1910, the total production being 163,018,561 tons, valued at £62,260,508.

Period.	Quantity.	Average. per ton.	Value.
	tons.	s. d.	£
Prior to 1880	20,697,747	10 8	11,036,723
1880-4	10,615,625	8 10	4,672,569
1885-9	15,490,611	9 2	7,077,864
1890-4	17,830,177	7 8	6,811,568
1895-9	21,334,976	5 8	6,048,281
1900-4	29,792,589	7 0	10,369,050
1905	6,632,138	6 1	2,003,461
1906	7,626,362	6 2	2,337,227
1907	8,657,924	6 9	2,922,419
1908	9,147,025	7 4	3,353,093
1909	7,019,879	7 5	2,618,596
1910	8,173,508	7 4	3,009,657
Total	163,018,561	7 8	62,260,508

Returns just to hand for the year 1911 show the output of coal for the year to be 8,691,604 tons, valued at £3,167,165.

From 1883 to 1898 there was a general decline in prices, but in this respect coal has not differed greatly from other products. In the earlier years the fluctuations in prices to a large extent arose from uncertainty in the markets; this uncertainty no longer exists, for the local markets and those of the other States of Australia and New Zealand demand a large share of the coal raised. The proportion of the production taken by Australia increases every year, and operates in the direction of steadying the price by removing the principal cause of fluctuation.

The following statement shows the quantity consumed in Australia, which includes the bunker coal taken by interstate vessels, and the over-sea exports during the last five years:—

Year.	Consumed within Commonwealth.	Exported Oversea—		Total Production.
		As Cargo.	As Bunker Coal.	
	tons.	tons.	tons.	tons.
1906	4,567,534	2,057,381	1,001,447	7,626,362
1907	4,934,376	2,644,507	1,079,041	8,657,924
1908	5,315,567	2,558,366	1,273,092	9,147,025
1909	4,440,981	1,580,564	998,334	7,019,879
1910	5,581,817	1,700,184	891,507	8,173,508

The export trade during the last two years has been considerably hampered by labour disputes, to which cause the large decreases shown in this table may be attributed. The proportion of the production consumed in Australia was 68 per cent, and the over-sea exports amounted to 32 per cent. The local consumption is steadily increasing on account

of the larger use of steam for railway locomotives, for manufacturing, smelting, and other purposes; also the multiplication of gasworks. The quantity exported to each oversea country is shown below; only the coal taken as cargo has been included:—

Country.	1906.	1907.	1908.	1909.	1910.
	tons.	tons.	tons.	tons.	tons.
New Zealand	215,503	221,094	285,043	240,345	223,023
Fiji	19,519	33,114	44,649	31,623	36,267
Straits Settlements	215,762	142,795	217,809	150,380	140,620
India	46,042	52,835	164,352	68,027	67,763
Hong Kong	70,668	63,623	86,632	40,277	9,584
Mauritius	12,237	1,001	791	3,475	5,020
South Africa	4,150	1,800	1,249	1	947
Canada ... ..	.....	1,014	.....	1,841	.. ..
United Kingdom ... ..	.....	.....	48	29	.....
Papua	1,190	.....	422	691	404
Other British Possessions	977	13,452	23,956	69	621
Total, British Possessions	586,048	530,728	824,951	536,758	489,249
Chile	601,044	878,012	789,620	469,420	553,302
United States of America	83,511	539,876	188,498	106,777	202,474
Philippine Islands	312,996	314,235	351,441	224,651	199,509
Hawaiian Islands	90,635	98,530	65,918	65,769	64,016
Peru	109,278	101,131	78,223	41,450	41,796
Java	66,342	37,784	87,226	64,160	92,343
Mexico	74,737	50,312	55,732	18,522	20,202
Panama	11,906	6,402	15,528	.....	.....
New Caledonia	12,294	12,816	10,079	6,228	7,712
South Sea Islands	5,893	4,172	5,911	6,019	1,825
Ecuador	15,484	7,519	36,092	12,734	6,927
China	71,794	41,058	43,394	15,608	2,105
Other Foreign Countries	15,419	21,932	5,753	12,468	18,724
Total, Foreign Countries	1,471,333	2,113,779	1,733,415	1,043,806	1,210,935
Total, Export Oversea	2,057,381	2,644,507	2,558,366	1,580,564	1,700,184

The largest exports are to Chile, New Zealand, United States of America, Philippine Islands and the Straits Settlements in the order mentioned.

In the following statement are presented the results of a number of proximate analyses, made by the Government Geologist, of coals from the various districts of New South Wales:—

Districts.	Composition.				
	Hygroscopic Moisture.	Volatile Hydrocarbons.	Fixed Carbon.	Ash.	Sulphur.
	per cent.	per cent.	per cent.	per cent.	per cent.
Northern	1.93	35.13	54.14	8.80	0.54
Southern	0.97	23.10	65.26	10.67	0.46
Western	1.87	31.49	52.61	14.03	0.63
Average	1.74	32.43	56.07	9.76	0.53

Similar analyses of English coal are shown in the following table:—

Description of Coals.	Composition.				
	Moisture.	Volatile matter.	Fixed Carbon.	Ash.	Sulphur.
	per cent.	per cent.	per cent.	per cent.	per cent.
Anthracite	1.50	6.25	81.75	10.50	1.25
Bituminous	2.50	39.00	50.00	8.50	2.00
Semi-bituminous	2.00	18.25	71.25	8.50	1.75
Average Bituminous Coals	2.25	28.63	60.62	8.50	1.88

Excluding the Welsh anthracite—the best coal known for steaming purposes—the above analyses show that the New South Wales product, especially that obtained from the Southern and Northern mines, compares favourably as a heat producer with the average bituminous coals. In addition, it has the advantage of a greater specific gravity, while containing less sulphur. The mean specific gravity of the Northern district coals was 1.338, and of the Southern and Western coals 1.389, the mean of a number of samples of British coals being 1.279.

The gas-producing qualities of New South Wales coal, especially that obtained from the Northern mines, are superior to those of English coal, but the latter has a slightly smaller percentage of ash. Southern coal is much used by the naval authorities on the Australian station and on the large ocean-going steamers, mainly on account of its cheapness, since the steam-producing power of the coal from the Northern districts of the State is almost equal to that of the Southern article.

COKE.

The quantities of coke manufactured in New South Wales during the last ten years were as follows:—

Year.	Quantity.				Total Value.
	Northern District.	Southern District.	Western District.	Total.	
	tons.	tons.	tons.	tons.	£
1901	35,939	92,943	.....	128,882	105,665
1902	24,219	102,653	.....	126,872	89,605
1903	34,730	125,862	.....	160,592	108,764
1904	31,825	139,181	.....	171,006	110,692
1905	25,329	137,632	.....	162,961	100,306
1906	55,991	130,069	.....	186,060	110,607
1907	31,453	210,614	12,542	254,609	159,316
1908	29,132	228,778	25,963	283,873	199,933
1909	23,564	155,443	25,267	204,274	137,194
1910	24,352	207,760	50,225	282,337	189,069

The total figures now available for the year 1911 show that 264,687 tons of coke, valued at £184,337, were manufactured in the State.

Owing to the difficulty of obtaining regular supplies of coke, consequent upon the uncertainty relating to freights, the Broken Hill Proprietary Company erected coke works at Bellambi, on the South Coast Railway line; these supply a large proportion of the company's requirements, and are so arranged that duplication can be carried out at any time when it may be considered desirable. The Mount Lyell Copper Mining Company have also erected coke works at Port Kembla, on the South Coast. It would seem that coke of local manufacture has at last overcome the strong prejudice which existed, judging from the great increase in the production in the Illawarra district during the last decade. This is doubtless due to the greater care exercised in its manufacture, and to the employment of a better class of kiln and appliances for cleaning the coal.

At the old Bulli mine a coal seam 6 feet thick has been for about half its thickness transformed into a natural coke, apparently through the intrusion of igneous matter underneath the seam.

Considerable activity is now being displayed in the South Coast district, where there are eight works all fully employed, and when the good qualities of the locally-manufactured coke are fully recognised, the district will doubtless become a great manufacturing centre.

KEROSENE SHALE.

This mineral is found in various parts of New South Wales, but principally at Hartley, Katoomba, Megalong, Bathgate, near Wallerawang, Joadja Creek, Berrima, Mount Kembla, Burragorang, and Greta, Colley Creek, near Murrurundi, in the Capertee district, and in the valley of the Wolgan River. The shale occurs in seams, or lenticular patches of varying extent, the largest hitherto discovered not exceeding 1 mile in length, and varying in thickness from a few inches to 6 feet. It is a species of torbanite or cannel-coal, similar to the boghead mineral of Scotland, but yielding a much larger percentage of volatile hydrocarbon than the Scotch mineral. The richest shale at the Joadja mine, near Mittagong, yields about 130 gallons of crude oil per ton, or 15,400 cubic feet of gas, with an illuminating power equal to forty-eight sperm candles when gas only is extracted from the shale, and has a specific gravity of 1.098, while the best shale from Hartley Vale yields from 150 to 160 gallons of crude oil, or 18,000 cubic feet of gas of forty-candle power per ton. The specific gravity of the best specimens of Joadja Creek and Hartley shale is 1.06, the amount of sulphur 0.49 per cent., and the yield of tar 40 gallons per ton. It is very suitable for mixing with ordinary coal in the manufacture of gas, and is largely exported to Great Britain, America, and other countries, as well as to the neighbouring States. On analysis, the following result was obtained from average specimens :—

Volatile Hydrocarbons, including moisture ...	...	...	82.50 per cent.
Fixed Carbon ...	...	...	6.50 "
Ash ...	...	...	11.00 "

In the north the British Australian Oil Company is opening up the mines at Murrurundi, and erecting works for the production of oil at Hamilton, and very satisfactory returns are now being obtained.

During the year 1910 an Act was passed by the Commonwealth Government under which provision is made for the payment of bounties on the manufacture of kerosene and paraffin wax from Australian shale.

The total amount of the bounties authorised to be paid is shown below :—

Description.	Rate of Bounty.	Maximum amounts which may be paid during the year 1910-11.	Maximum amounts which may be paid during each of the years 1911-12 and 1912-13.	Date of Expiry of Bounty.
Kerosene, the product of shale, having a flashing point of not lower than 73 degrees Fahrenheit	2d. per gallon	8,000	16,000	} 30th June, 1913.
Refined Paraffin Wax	2s. 6d. per cwt.	2,000	4,000	

The large saving in labour and cost of oil as fuel in comparison with coal, chiefly in connection with shipping, has caused many steamships trading to this State to be fitted so that oil may be used. It is worthy of note that during 1911 the Australian destroyers, "Parramatta" and "Yarra" were supplied with large quantities of oil from Hartley Vale.

The production of kerosene shale from the opening of the mines in 1865 to the end of 1910 amounts to 1,490,312 tons, of the value of £2,251,081, as shown in the following table :—

Period.	Quantity.	Average Price per ton.	Total Value.	Period.	Quantity.	Average Price per ton.	Total Value.
	tons.	£ s. d.	£		tons.	£ s. d.	£
1865-84	370,217	2 4 9	828,194	1907	47,331	0 13 7	32,055
1885-89	186,465	2 3 7	406,255	1908	46,303	0 11 3	26,067
1890-94	247,387	1 16 6	451,344	1909	48,718	0 9 8	23,617
1895-99	191,763	1 3 3	222,690	1910	68,293	0 9 11	33,896
1900-04	213,163	0 16 8	177,246	Total ...	1,490,312	1 10 3	2,251,081
1905	38,226	0 11 1	21,247				
1906	32,446	0 17 7	28,470				

Figures prepared for the year 1911 show that 75,104 tons of kerosene shale, valued at £36,980, were raised in the year.

The features of this table are the steady fall in the average price of the mineral and the fluctuating production. There is no special reason for the rise and fall in the quantity of shale produced, beyond the irregular demand for export, and the slackening of mining operations while the mineral at grass is being reduced. During 1909 the mine at Wolgan was practically idle for seven months, owing to labour troubles, but, as evidenced by the satisfactory increase, the output was not seriously affected during 1910.

At the shale mines in 1910 there were 196 men employed under ground and 230 above ground, or a total of 426.

DIAMONDS AND OTHER GEM-STONES.

The existence of diamonds and other gem stones in New South Wales was recorded as early as 1851, but no definite industry has yet been founded in this connection. The diamonds occur in old Tertiary river drifts, and in the more recent drifts derived from them. The deposits, which occur in the Inverell, Bingara, Mittagong, Cudgegong, and Narrabri districts, are extensive, and have not yet been thoroughly prospected. The finest of the New South Wales diamonds are harder and

much whiter than the South African diamonds, and are classified as on a par with the best Brazilian gems. The largest stone secured in this State was found during 1905 at Werong, 30 miles from Oberon, and weighed $28\frac{5}{16}$ carats. There is a great difficulty in obtaining exact statistics of the production in New South Wales, which will continue until the industry becomes well established. The following table, compiled from the available information, can be regarded only as an approximation, and is believed to considerably understate the actual output. The majority of the diamonds have been obtained from the mines in the Bingara and Copeton (Tingha) districts:—

Period.	Carats.	Value.
	No.	£
1867-1885	2,856	2,952
1886-1890	8,120 $\frac{1}{2}$	6,390
1891-1895	19,742 $\frac{3}{4}$	18,245
1896-1900	69,384 $\frac{1}{2}$	27,948
1901-1905	54,206	46,434
1906	2,827	2,120
1907	2,539	2,056
1908	2,205	1,358
1909	5,474	3,959
1910	3,606	2,881
Total ...	170,960 $\frac{3}{4}$	114,343

Other gem-stones, including the sapphire, emerald, oriental emerald, ruby, garnet, chrysolite, topaz, zircon, &c., have been found in the gold and tin-bearing drifts and river gravels in numerous localities throughout the State. Precious stones, such as amethyst, cairngorm, and onyx, with other varieties of agate, are occasionally found. In 1908 emeralds to the value of £1,700 were obtained at The Glen, in the Emmaville division. The largest stone in the rough weighed 60 carats. With this exception no gems have been produced during recent years.

The topaz is obtained largely at Oban, in the Glen Innes district, but the price obtained is very low.

Turquoises have been discovered at Mount Lorigan, near Wagonga, and work was carried on during the year 1895 by means of aid granted from the Prospecting Vote. In 1896, however, the mine was closed.

OPAL.

The finest opal known is obtained in the Upper Cretaceous formation at White Cliffs, near Wilcannia. It is difficult to state the extent of the production; but the following table shows the estimated value to the end of 1910:—

Year.	Value.	Year.	Value.
	£		£
1890	15,600	1902	140,000
1891	.....	1903	100,000
1892	2,000	1904	57,000
1893	12,315	1905	59,000
1894	5,684	1906	56,500
1895	6,000	1907	79,000
1896	45,000	1908	41,800
1897	75,000	1909	61,800
1898	80,000	1910	66,200
1899	135,000		
1900	80,000		
1901	120,000	Total ...	1,237,899

The decrease in the value since 1907 is caused by the decline in the market price.

In 1896, opal was discovered at Purnanga, about 40 miles north-east of White Cliffs, but the scarcity of water has retarded development. Some very fine parcels of stone have been raised in this locality, and it is considered that Purnanga is the nucleus of a fine opal field should a good water supply become available. A field near the Queensland border, and known as Wallangulla, produces black opal remarkable for colour, fire, and brilliancy. There is now a settled population at Wallangulla, and the field generally has an aspect of stability; the output during 1910 was valued at £46,200.

The quality of the stone found on the opal fields varies considerably, some realising only 10s. per oz., whilst the best quality occasionally realises as much as £70 per oz. in the rough, but prices ranging from £5 to £20 per oz. are of frequent occurrence. During 1910 the sum of £102 was paid for a stone weighing $6\frac{1}{2}$ carats of the black variety obtained from the Wallangulla field. The best market for the gems is Germany, where they are sold readily; but it is stated that the principal gem merchants of Europe have now agents on the fields for the purchase of the stone.

OTHER MINERALS.

Mica is known to exist in many parts of New South Wales, but has never yet been worked, although there is a considerable demand for the article, especially if in blocks of fairly large size that could be split easily into thin plates. It is to be obtained in the numerous granitic areas which occur in various parts of the State, especially in the coarsely-crystalline granitic formations in the Silverton district, and elsewhere in the Barrier Ranges.

Asbestos has been found in veins in serpentine in the Gundagai, Rockley, and Barrier Range districts—in the last-named in considerable quantities. A trial parcel of asbestos from the Gundagai district was sent to Europe during 1909, and, if reports are satisfactory, mining operations will be started.

Alunite occurs as a large deposit at Bulladelah, about 35 miles from Port Stephens, the yield averaging about 80 per cent. of alum. During 1910, 1,136 tons of alunite, valued at £2,840, were shipped to England, where it was found that the stone can be treated more cheaply than is possible locally. The value of alunite, the product of this State, exported to the end of 1910, is set down at £102,048.

Arsenic produced during the year 1910 amounted to 200 tons.

MARBLE, BUILDING STONES, PIGMENTS, CLAYS, AND SLATES.

New South Wales possesses an abundant supply of various kinds of stone and other materials for building purposes. Marble limestone is found in great masses near Wallerawang, Bathurst, Molong, Marulan, Tamworth, and Kempsey, localities which are all within convenient distance of the great arteries of communication. Marble quarries have been opened in the Cow Flat, Marulan, Wallerawang, Orange, and Tamworth districts; but as the total value of the marble raised to the end of 1910, amounted only to £20,114 at point of production, it is evident that the natural advantages have not been materially developed.

The cost of quarrying and the carriage to Sydney are heavy; but the local marble compares so favourably, both in form and colouring, with the imported article, that its more extensive use may reasonably be expected. During 1910 marble valued at £2,134 was obtained, principally from quarries at Caloola, in the Rockley division, and from Borenore, in the Orange division.

Granite is found at Bathurst, Moruya, Trial Bay, and on Montagu Island, as well as at many other places throughout the State. Most of the granite hitherto used in Sydney has been obtained from Moruya, a port about 180 miles south of Sydney.

Limestone flux was supplied formerly to the Broken Hill silver-mines from quarries at Tarrawingee, about 30 miles distant; but when the Broken Hill Proprietary Company transferred the whole of their smelting operations to Port Pirie, in April, 1898, the demand for flux ceased, and the quarries thereupon were closed. From 1900 to 1904 considerable activity was displayed in the mining of limestone at Portland, in the Mudgee district, in connection with the Lime and Cement Works, also in the Rockley division, and at Marulan, Broken Hill, Bulladelah, Taree, Barraba, Parkes, and Peak Hill, where lime has been produced and a quantity of limestone obtained for flux.

The output during the last five years has been well maintained, the quantities raised being used for the manufacture of Portland cement and lime, or utilised by the smelting companies as flux. The large dam in course of construction at Burrinjuck and the extensive railway and other constructional works in progress have created an increased demand for cement within this State, while the export trade is rapidly growing. The following table shows the quantity raised for flux since 1902, together with the value of cement manufactured:—

Year.	Limestone raised for flux.		Value of Cement manufactured.
	Quantity.	Value at Smelting Works.	
	tons.	£	£
1902	17,352	10,615	46,500
1903	23,824	14,221	55,740
1904	24,975	14,434	54,750
1905	14,941	9,519	88,100
1906	12,788	7,463	128,487
1907	41,667	16,162	144,548
1908	53,668	14,779	184,400
1909	45,078	13,851	202,200
1910	56,938	16,946	251,110

The Hawkesbury formation, on which the city of Sydney is built, provides an inexhaustible supply of sandstone, of the highest quality for building purposes. This material is admirably adapted for architectural effect, being of a pleasing colour, fine grain, and very easily worked. The beauty of Sydney street architecture is due, in a considerable degree, to the free use of this excellent stone.

Basalt, or "blue metal," which is much in demand for road metal and for the ballasting of the railway lines, is obtained at Kiama, Prospect, and Pennant Hills. This stone has not yet been used to any extent for building purposes.

Syenite, commonly called trachyte, is found at Bowral; as a building material it is equal to granite in solidity, and takes a beautiful polish. The success which has attended its use for building purposes, together with the short distance from the metropolis at which it is to be found, is causing it to be regarded favourably for large structures.

Kaolin has been found in many granitic districts, such as Bathurst, Gulgong, Uralla, and Tichborne, near Parkes. The clay is of excellent quality, and superior to the best obtained in England and France. It is

despatched in fair quantity from Tichborne, to be used for manufacturing purposes in Sydney. The pottery clay mined at Ulladulla during the year 1910 amounted to some 100 tons.

The coal measures contain numerous beds of fire-clays; and in every part of the State excellent clays, well adapted for brick-making purposes, are extensively worked. From Hartley a good output of high-grade silica bricks has been maintained, the approximate value of the output in 1910 being £3,500. Fire-bricks valued at £100 have been manufactured at Bathurst.

A deposit of steatite is being opened up at Wallendbeen, and the quantity disposed of during 1910 totalled 98 tons.

Barytes have been obtained at Bethungra and Cobargo.

Magnesite has been found at Fifield, but little work was done during 1910.

Diatomaceous earth, valued at £242, was obtained at Bunyan, in the Cooma division, during 1910, and several areas were acquired to mine for diatomaceous earth at North Barraba.

Fuller's Earth has been located at Boggabri, in the Narrabri division. Trial parcels of the earth, after treatment, have realised from £4 to £6 10s. a ton in Sydney.

The deposit has been proved to a depth of between 20 and 30 feet.

Slates are found in several districts, but are quarried principally at Gundagai, Bathurst, and Goulburn. The State has no need to import building material of any description, as it possesses a supply amply sufficient to provide for all requirements.

Graphite occurs in the Walcha division, and at Undercliffe, in the New England district, where there are several lodes, one of which is 6 feet wide, but of inferior quality. The only mining for plumbago is at the Undercliffe mine, where recently a company has entered upon operations with the intention of manufacturing lubricants, crucibles, paints, &c.

PROSPECTING VOTE.

The Legislature for some time past has provided a sum annually to encourage prospecting for gold, and in 1889 the conditions of the vote were so amended as to embrace all minerals. The amount set apart each year was originally £20,000. For the year 1892, however, it was fixed at £40,000; and during each of the subsequent years, until 1902, the sum of £25,000 was available. For the year 1902-3 the amount voted was reduced to £20,000, and this has been further decreased to £15,000 for each of the following years. During recent years, with the exception of the Cobar district, where operations are most active, prospecting has not been followed so vigorously as previously. This is explained by the demand for competent miners at the established mines, and by the steady employment offering in connection with the agricultural and pastoral industries.

The discovery of a large payable field has, so far, not been made by means of the Prospecting Vote; but some rich mines have been opened up with the aid granted, notably the Mount Boppy mine, which is now the premier gold-mine of the State, having produced gold to the value of £986,166 during the last ten years. The Queen Bee copper mines owes its present successful position to the aid granted, and the Crowl Creek mine at Shuttleton was opened up indirectly as the results of assistance from the same source. In addition to the employment of labour, the proving of a lode or reef invariably leads to the development of large areas of adjoining land under the Mining Act, from which increased revenue is derived by the State. From the year 1888 to the end of 1910, the amount expended in encouraging prospecting was £416,215.

Miners desiring a grant from the vote have to satisfy the Prospecting Board that the locality to be prospected is likely to yield the mineral sought, and that the mode of operation is suitable for its discovery. Aid is given in deserving cases up to 50 per cent. of the value of the developmental work done, inclusive of the cost of the necessary implements and materials. The granting of assistance for sinking from the surface is not favoured, and applicants are generally required to prove their *bona-fides* by carrying out a certain amount of work unassisted. Miners who have been assisted from the vote are not entitled to claim any reward that may be offered for the discovery of a new gold or mineral field.

A clause in the Prospecting Regulations provides that the amount advanced from the vote shall be refunded in the event of the discovery of payable mineral by means of the aid granted.

During 1910 provision was made by Parliament for the erection of crushing batteries by the State, and also for assisting prospectors to erect plants. In order to procure the erection of a State battery, reasonable evidence must be adduced that the plant is likely to be kept employed or that there are prospects of new lodes being opened up as a result of the installation.

The proposal to make advances to prospectors to assist them to purchase plants has been designed to meet the case of small mine-owners as, while satisfying their requirements, it would relieve the Government of the cost which the operation and maintenance of State batteries would entail. Assistance up to 75 per cent. of the cost of the plant and water supply may be advanced, and the prospector's contribution may be made up, either wholly or in part, of labour and material. In view of the fact that no interest is to be charged for the advance, the Government will impose a condition that the prospector is to crush parcels of ores for the public on a specified number of days, and will fix the maximum charges.

GOVERNMENT BLUE METAL QUARRIES.

At Port Kembla, which is 56 miles from Sydney, a large quarry is being worked by the State to primarily provide blocks of stone of large size for the breakwater now in course of construction. As the facilities for easy and quick transit of metal by rail and water are very favourable, the small stone not required for the breakwater is being broken into road metal and utilised for tramway ballast, concrete, &c.

The Government in the month of August, 1911, purchased from the Kiama Road Metal Company the Kiama quarry, including a full working plant and a steamer. The metal requirements of the various branches of the Department of Public Works will be supplied chiefly from this quarry.

GOVERNMENT BRICKWORKS.

During the year 1911 brickworks were erected by the State at Homebush Bay, near Sydney, and are now in operation. The works are close to the railway, and a tramline has been constructed for the conveyance of bricks to a deepwater wharf on the Parramatta River. The land covers about 18 acres, and the shale goes down at least 50 feet. A factory has also been erected at Botany for making sand-lime bricks.

AREA UNDER MINING OCCUPATION.

At the close of the year 1910 the area of Crown lands occupied for mining purposes amounted to 284,474 acres, and there were 34,299 acres of private and reserved lands held under mining regulations. Under the Church and School Lands Mining Act of 1889, 28 acres were held,

making a total of 318,801 acres under mining occupation. The following table shows how the total area is made up:—

Nature of Holding.	Acres.	Acres.
Crown lands under lease for gold	13,651	
" " other minerals	192,599	
" under special lease (dredge) for gold	5,266	
" " tin	1,558	
" for water conservation	4,380	
" under lease for gold and other minerals... ..	2,262	
Total area Crown lands under mining lease		219,716
Auriferous Crown lands under application to lease	2,208	
Crown lands under application to lease for other minerals .	22,755	
Crown lands under application for dredging	3,293	
" as sites for races, dams, &c.	223	
Total Crown lands under application to lease		28,479
Other Crown lands held under Mining Regulations... ..		36,279
Total Crown lands occupied for mining purposes		284,474
Private lands under gold lease	2,392	
" " mineral lease	1,923	
" " gold and mineral lease	1,155	
" leased for water conservation, &c.	205	
Total area Private lands under mining lease		5,675
Private lands under application to lease	4,086	
" " for races, &c.	271	
Reserved lands under permits for gold	2	
" " and other minerals... ..	2,481	
Private lands under agreement with owners	13,847	
" " authority to enter	7,937	
Total Private and reserved lands under permits		28,624
" " leases and permits		34,299
Area under Church and School Lands Mining Act of 1889... ..		28
Total area under mining occupation at 31st December, 1910		318,801

The number of miners' rights issued during 1910 was 17,355, and the revenue derived therefrom amounted to £2,993. During the same period 1,298 business licenses were granted, the fees received being £843.

MINING ACT, 1906.

The Mining Act, 1906, consolidated and amended the Acts previously existing—thirteen in number—relating to mining on Crown and private lands. The Mining Board Regulations, and the various sets of regulations made under the repealed Acts, have been superseded by a consolidated set of regulations under the new Act. They practically constitute the law relating to holdings under miners' rights, besides prescribing conditions relating to mining leases; in each case the existing provisions are simplified and liberalised. The principal provisions of the Act may be summarised briefly as follow:—

Miners' Rights and Business Licenses.

A miner's right or a business license is issued for any period from six months up to twenty years, the fees payable being determined according to the currency of the right or license. In the case of a miner's right, the fee is 5s. per annum, and for a business license £1 per annum.

The miner's right entitles the holder to occupy Crown land for the purpose of mining for gold and minerals, for constructing works, conserving water, or obtaining timber in connection with mining, also for residence.

A business license entitles the holder to occupy one quarter of an acre of Crown land in a town or one acre outside town boundaries, for the purpose of carrying on business and for residence respectively. Under

a provision of the Crown Lands (Improvement Purchase) Act, 1909, holders of business areas exceeding the limit allowed by the Mining Act of 1906, within the suburban boundaries of any town, may obtain by purchase a freehold title to such areas, provided that registration was effected prior to July, 1907, and that the areas do not exceed one acre.

The regulations prescribe the areas which may be held as prospecting areas or claims for dam or machinery sites, and the contingent labour conditions; and provision is made for registration and survey in certain instances, transfer, creation of shares, and all other matters affecting holdings under miner's right or business license.

Special provision is made by section 17 of the Act for the issue to any holder of a miner's right of an authority to prospect upon extended areas of Crown land, whether exempted from ordinary occupation under miner's right or not. Such authority is subject to payment of a small rent, and upon finding gold or minerals the holder may be required to take out a lease.

Leases of Crown Lands.

The term "Crown Lands" has a much wider interpretation under the existing Act than was the case under the repealed Acts, and now embraces all lands vested in the Crown or in any trustee or constructing authority for public purposes, all lands held under lease from the Crown (except conditional lease or conditional purchase lease), and any road, street, or highway.

Leases of Crown lands are divided into two classes—(a) Mining leases, and (b) leases for "mining purposes."

Mining leases are for either gold or minerals, the annual rent in each case being 5s. per acre, except in the case of leases for coal or shale, which are subject to a rental of 1s. per acre, and a royalty of 6d. per ton on all shale or large coal, and 3d. per ton on all small coal raised. The amount paid as rent may be deducted from the royalty.

Gold-mining leases are limited to 25 acres, mineral leases (other than coal, shale, or opal) to 80 acres, coal or shale leases to 640 acres, and opal leases to 10 acres; and the maximum term for which a lease may be granted is twenty years, with the right of renewal for a similar term.

Under special conditions, where there are exceptional difficulties in mining the land, leases for larger areas may be granted, subject to report by the Prospecting Board. Such special leases are subject to payment of a rent or royalty to be fixed by the Minister in each case.

The definition of "mining purposes" covers all operations in connection with mining, such as erecting buildings or machinery, conserving water, treatment of tailings, or any other purpose in connection with mining for gold or minerals. These "mining purpose" leases are limited to the surface and to a specified depth, and do not authorise the holder to mine for any minerals contained in the land.

Mining on Private Lands.

The holder of a miner's right may obtain from the Warden an authority to enter upon any private land to prospect for gold, or upon land granted with the reservation of minerals to the Crown, to prospect for minerals other than coal or shale. The fee for such authority is 5s., and the holder must pay to the owner of the land such rent and compensation for surface damage as the Warden, after inquiry, may assess. Having obtained his authority to enter, the holder may search for the specified mineral on the area granted (not more than 25 acres for gold nor 80 acres for minerals) and may apply for a lease of the whole or any part of the land. Such lease may be for any term not exceeding twenty years, with the right of renewal for a like term. The rent to the owner of the land is £1 per

acre, payable in respect only of such part of the surface as is granted. A royalty of one per cent. on the gross value of the gold and minerals won is payable to the Crown. The owner of private land, or the occupier with the owner's consent, may obtain an authority to enter or lease of any area, not exceeding that prescribed for an ordinary lease, to mine for gold or for any minerals, without any payment of rent or compensation, and such owner or occupier may also obtain a lease of any area not exceeding 640 acres to mine for coal or shale. Such owners' leases are subject to the payment to the Crown of 1 per cent. royalty on gold or minerals, and 6d. per ton of large coal or shale, and 3d. per ton of small coal.

The owner of any private land may enter into an agreement with the holder of a miner's right, giving him permission to mine for gold or minerals (if reserved to the Crown) on any area not exceeding that prescribed for an ordinary lease. Such agreement must be submitted for the Minister's concurrence, and is subject to the payment of 1 per cent. royalty to the Crown on all gold or minerals won. All agreements must be registered.

All lessees or holders of agreements may deduct rent paid from the amount of royalty payable.

Under special conditions, where there are exceptional difficulties in mining the land, leases for extended areas may be granted, subject to report by the Prospecting Board.

The Closer Settlement (Amendment) Act, 1909, provides that all grants of land under the Closer Settlement Act shall contain a reservation of all minerals in such land. The effect of this provision is to make such lands "private lands" within the meaning of the Mining Act, 1906.

Dredging.

Leases of Crown or of private land may be granted for the purpose of mining for gold or any mineral by dredging, sluicing, or other method. Such leases may cover any area not exceeding 100 acres, and continue for any term not exceeding twenty years, with the right of renewal for a similar term. The lessee is required to employ a certain number of men, and to expend a certain sum in the purchase and erection of machinery and appliances. The rent of Crown land is 2s. 6d. per acre, and of private land such amount as may be assessed by the Warden. Compensation for surface drainage to private land may also be assessed by the Warden. Rent paid may be deducted from the royalty payable.

Leases generally.

The labour conditions fixed by Regulation are as follow:—

For gold: 1 man to 5 acres for the first year, and thereafter 1 man to 2 acres.

For minerals other than gold, coal, or shale; 1 man to 20 acres for the first year, and thereafter 1 man to 10 acres.

For coal or shale: 2 men to 320 acres.

The Act empowers the Warden to grant suspension of the labour conditions on any lease if the mine is unworkable, or if the lessee is physically or financially unable, for a limited period, to work the mine.

The Minister may grant suspension, on the recommendation of the Warden, if the price of the miner's product be low, or for any other adverse conditions; suspension may be granted for any period not exceeding six months; if a lessee has employed labour in excess of that required by the terms of his lease, he may obtain exemption from labour conditions to the extent of one month in respect of each six months during which excess labour has been employed.

THE MANUFACTURING INDUSTRY.

THE rapidly growing importance of the manufacturing industries of New South Wales may be gathered from the following statement, which shows for each year since 1903 the value of plant and machinery, the wages paid to employees, and the corresponding annual output :—

Year.	Establishments.	Employees.	Value of Plant and Machinery.	Wages paid.	Goods manufactured or work done.
	No.	No.	£	£	£
1903	3,476	65,633	7,121,806	4,839,557	26,391,028
1904	3,632	68,036	7,648,903	5,012,758	27,159,230
1905	3,700	72,175	8,031,948	5,191,350	30,028,150
1906	3,861	77,822	8,407,337	5,591,888	34,796,169
1907	4,432	86,467	9,155,772	6,650,715	40,018,301
1908	4,453	89,098	9,718,842	7,218,556	40,163,826
1909	4,581	91,702	10,330,724	7,665,125	42,960,689
1910	4,823	99,746	11,578,620	8,691,386	49,615,643

In the above table the figures representing "Goods manufactured or work done" include the value of production of factories making butter and cheese. In previous issues of this publication the value of these factory products was excluded from the table because such amounts had been credited to the dairying industry.

As, however, the number of employees, value of plant and machinery, also wages paid, are representative of all factories it seems proper in the presentation of a statement of Manufacturing Industries to include the total output irrespective of the factories concerned.

From these figures it appears that within the short period of eight years additional plant to the value of nearly $4\frac{1}{2}$ million pounds has been introduced, and that for 1910 the wages were 63 per cent. and the output 87 per cent. greater than in 1903. Comparing the figures for 1910 with those of the previous year remarkable expansion is shown—during the year there were increases of 8,000 employees, £1,247,900 in the value of machinery, &c., £1,026,300 in the amount of wages paid, and £6,655,000 in the output.

Prior to 1901 there was no law in force requiring proprietors of factories and works to supply annual returns of their operations. The Census Act, however, conferred extensive powers on the Statistician with respect to these establishments, and, in consequence, the industrial statistics since that year have been on a very comprehensive basis.

Establishments where machinery is not used are excluded from consideration unless at least four persons are employed. Prior to 1896 the minimum in such cases was five employees; but a change was made to secure interstate uniformity, consequently all information regarding manufacturing throughout Australia is now compiled on a common basis. All works and factories are included in which machinery is used, as it is obvious that an establishment where only two or three persons are employed to look after the machinery may turn out a greater quantity of work than another in which there is a much larger number of persons, unassisted by mechanical power.

The following table shows the progress since 1896, both in regard to persons employed and machinery used :—

Year.	Establishments.	Persons Employed.			Power of Engines.		Value of Machinery and Plant.
		Males.	Females.	Total.	Full Capacity.	Average Used.	
					h.-p.	h.-p.	£
1896	2,928	42,908	6,932	49,840	44,839	33,253	5,035,905
1897	2,826	44,333	7,106	51,439	46,347	34,191	5,294,228
1898	2,839	44,673	7,845	52,518	44,241	32,968	5,435,696
1899	2,912	47,063	8,583	55,646	45,938	33,080	5,640,384
1900	3,077	50,516	10,263	60,779	49,599	35,828	5,707,640
1901	3,367	54,556	11,674	66,230	63,405	44,595	5,860,725
1902	3,396	54,326	11,943	66,269	75,907	52,813	6,807,843
1903	3,476	52,453	13,180	65,633	81,475	59,353	7,121,806
1904	3,632	53,457	14,579	68,036	86,878	62,407	7,648,903
1905	3,700	56,111	16,064	72,175	90,896	70,054	8,031,948
1906	3,861	59,979	17,843	77,822	97,244	74,756	8,407,337
1907	4,432	65,953	20,514	86,467	108,257	81,293	9,155,772
1908	4,453	67,616	21,482	89,098	116,571	88,109	9,718,842
1909	4,581	69,184	22,518	91,702	145,349	99,327	10,330,724
1910	4,823	75,419	24,327	99,746	155,590	114,871	11,578,620

The capacity of engines shown in this table is exclusive of the electrical power, as it is dependent on steam or other engines for its development, and the power has already been credited to their agency.

Taking the figures for 1901 it will be seen that during the last ten years there has been an increase of 20,863 males and 12,653 females, making a total of 33,516 persons. The proportionate increase in the number of females has been much greater than in the case of males, for in several years the latter showed a decrease. From 1893 to the end of 1901 the number of males steadily increased; but during the next two years there was a temporary decrease, chiefly of employees in metal works, establishments dealing with pastoral products and refrigerating works.

The increase in the number of factory employees during 1910 amounted to 8,000 persons as compared with the previous year, and this number would have been much greater if the employers had been able to obtain all the labour they required. The difficulty of obtaining workers became so acute that a Royal Commission of Inquiry was appointed in June, 1911. An interim report was furnished in September, 1911, in which the Commission estimated that 3,247 workers were necessary to fill requirements. Of this number about 1,000 men were for manufactories, including 416 men for the Government Dockyard; 550 women are also required, mainly for boot and clothing factories.

EMPLOYMENT OF FEMALES.

The great increase in the number of females employed is a striking feature of the table just given, and when viewed as a proportion of the total number of persons, the result is still more marked. Taking the figures for 1896, it is found that the females represented only 13·9 per cent. of the total employees, while in 1901 the proportion had increased to 17·6 per cent., and in 1910 to 24·4 per cent. In order to indicate clearly the extent

to which female labour is utilised, and the direction in which it is chiefly applied, the following table has been prepared, showing the numbers engaged in each of the principal branches of the manufacturing industry during these years and the proportion to every hundred males employed :—

Manufactory or Work.	Females Employed.			Number of Females to 100 Males.		
	1896.	1901.	1910.	1896.	1901.	1910.
Biscuits	136	350	612	44	71	111
Boots and Shoes	849	1,118	1,609	32	39	56
Clothing (Slop)	1,290	2,636	4,817	322	434	516
Clothing (Tailoring)	1,036	1,437	2,805	107	100	135
Clothing (Shirts, &c.)	56	337	1,529	509	1,021	1,141
Confectionery	118	225	423	33	39	63
Dressmaking and Millinery	1,738	2,526	4,772	4,138	4,141	6,118
Hats and Caps	50	198	944	217	150	208
Jam and Fruit Canning	81	140	372	22	28	89
Printing and Bookbinding	394	703	1,410	9	16	24
Paper Bags and Boxes	134	140	693	343	149	149
Tobacco	170	428	757	36	71	116
Woollen and Tweed Mills	70	72	429	43	44	134
Other Industries	810	1,364	3,155	2	3	5
Total	6,932	11,674	24,327	16	21	32

In 1910 there were 17,395 more females employed in the above industries than in 1896, and the proportion of females to every hundred males employed had risen from 16 to 32. Between 1901 and 1910 the increase in the proportion was quicker relatively than in the years prior to 1901; although the greater portion of the numerical increase has occurred in those industries which essentially belong to women's sphere, there has also been a considerable increase in other industries, and there is evidently an increasing tendency on the part of the manufacturers towards the introduction of female labour for the performance of minor duties in the work of manufacture, and in connection with the sorting, packing, and labelling of finished articles. Amongst the industries enumerated in the previous table, in nearly every instance the number of females employed to 100 males is increasing, noticeably in the biscuit and tobacco factories, and woollen and tweed mills.

In the clothing industries, which include the manufacture of slop and waterproof clothing, tailoring, shirt and hat making, dressmaking and millinery, the number of females employed in 1896 was 4,264, as compared with 14,944 in 1910, an increase of 10,680 persons, equal to 250 per cent. In other industries the numbers in each year were 2,668 and 9,383 respectively, an increase during the period of 6,715, or 252 per cent.

CHILD LABOUR.

Child labour is not employed in the factories of the State to any great extent. The law regulating primary education provides that children must attend school until they reach their fourteenth year, with the exception of those who, prior to reaching that age, have obtained exemption certificates. The Shops and Factories Act of 1896 provides that no child shall be employed in any factory, unless by special permission of the Minister, and no such special permission shall be given to a child under the age of 13 years; for the purposes of this Act, any person under 14 years of age is considered to be a child. On 30th December, 1910, the Minister decided that permission would not be granted except under extreme circumstances to any girl under 14 years, and it is satisfactory to record that in only seven cases during 1910

was it found necessary to grant such permits, whereas during the previous year 148 had been given. The number of boys to whom permits were given during 1910 was 179, a decrease of 28 per cent. as compared with 1909.

Useful information in this connection is collected under the provisions of the Factories and Shops Act, which shows the trend of the movement regarding the employment of child labour. Taking the factories in the metropolitan district, the following are the figures for the last ten years :—

Year.	Factories under Factories and Shops Act.					
	Employees under 16.		Total Employees.		Proportion of Employees under 16.	
	Males.	Females.	Males.	Females.	Males.	Females.
1901	1,545	965	31,247	11,026	per cent. 4·94	per cent. 8·75
1902	1,603	1,277	31,433	12,397	5·10	10·30
1903	1,560	1,352	30,539	13,464	5·11	10·04
1904	1,634	1,572	30,888	14,777	5·29	10·64
1905	1,793	1,499	33,437	15,747	5·36	9·52
1906	2,017	1,891	36,200	17,591	5·57	10·74
1907	2,233	2,082	39,157	19,063	5·70	10·92
1908	2,138	2,059	41,669	20,725	5·13	9·93
1909	2,104	2,309	43,872	22,399	4·80	10·31
1910	1,981	2,225	47,556	23,529	4·17	9·46

The proportion of boys and girls which for several years remained fairly constant at 5 and 10 per cent. of the total employees of their respective sexes showed a satisfactory decrease during 1910. The continued prosperity of the State enables parents to keep their children longer at school, and the employment of girls under 14 years has been restricted by the Ministerial decision, noted above.

METROPOLITAN AND COUNTRY MANUFACTORIES.

The number of manufactories in the State at the end of 1910 was 4,823, and the number of employees 99,746, or an average of 21 per establishment. There were 168 establishments, which each employed over 100 persons, the average number therein being 219. In the following table will be found a division of the manufactories in the metropolitan and country districts, according to the number of employees during 1910 :—

Establishments employing—	Metropolitan District.		Country Districts.		New South Wales.	
	Establishments.	Employees	Establishments.	Employees	Establishments.	Employees
Under 4 employees	220	510	530	1,245	750	1,755
4 employees	157	628	362	1,448	519	2,076
5 to 10 employees... ..	687	4,867	1,004	6,910	1,691	11,777
11 to 20 „	508	7,562	352	5,056	860	12,618
21 to 50 „	455	14,028	142	4,183	597	18,211
51 to 100 „	190	13,324	48	3,147	238	16,471
101 and upwards	129	29,066	39	7,772	168	36,838
Total	2,346	69,985	2,477	29,761	4,823	99,746

The chief seat of the manufacturing industry is, of course, to be found where population is densest; consequently the factories of the metropolitan district, although not so numerous, are much more important than those of the country, and provide employment for twice the number of persons. The average number of employees per establishment in the metropolitan district was 30, and in the country 12.

The disparity between the metropolitan and country districts has not been always so marked—in 1900 the employees numbered 38,668 and 22,111, respectively—therefore it appears that the chief development of the manufacturing industry within recent years has taken place in the metropolis.

The facilities for the establishment of large industries in and around Sydney are considerable—a commanding position as regards communication with the outside world, proximity to the coal-fields, easy communication by rail or sea with the chief places of raw production in the State, density of population, and abundant water supply—these have tended to concentrate all the important industries in the metropolitan district. In the country districts the principal works are saw-mills, smelting works, sugar-mills, and flour-mills, also industries of a domestic character intended to meet a day-to-day demand, and for the treatment of perishable goods.

The following table shows separately the number of persons employed in the metropolitan district and the country districts of the State for the last ten years :—

Year.	Employees.		Total.	Year.	Employees.		Total.
	Metropolitan District.	Country Districts.			Metropolitan District.	Country Districts.	
1901	42,415	23,815	66,230	1906	52,605	25,217	77,822
1902	43,577	22,692	66,269	1907	57,247	29,220	86,467
1903	43,752	21,881	65,633	1908	60,974	28,124	89,098
1904	45,409	22,627	68,036	1909	63,777	27,925	91,702
1905	48,842	23,333	72,175	1910	69,985	29,761	99,746

CLASSIFICATION OF MANUFACTORIES.

The majority of the manufacturing industries may be classified as domestic industries—that is to say, industries called into existence by the natural resources of the State, or connected with the treatment of perishable products for immediate use; but there are many industries the products from which come into competition with imported goods.

The industries are divided into nineteen classes, and the number of employees in each class at intervals since 1896, was as follows :—

Class of Industry.	Employees.				
	1896.	1901.	1906.	1909.	1910.
Raw Materials, Pastoral Products ...	3,748	2,981	3,209	3,800	3,986
Oils and Fats, Animal, Vegetable, &c. ...	410	698	681	694	765
Processes in Stone, Clay, Glass, &c. ...	2,441	3,007	3,877	4,135	4,882
Working in Wood ...	3,934	5,108	5,205	6,690	7,423
Metal Works, Machinery, &c. ...	8,705	13,926	15,339	18,755	20,703
Food and Drink, &c. ...	10,179	11,372	11,607	12,331	13,118
Clothing and Textile Fabrics, &c. ...	9,750	14,497	19,650	23,161	24,597
Books, Paper, Printing, &c. ...	4,940	5,573	6,961	8,045	8,642
Musical Instruments ...	18	226	338	370	383
Arms and Explosives ...	...	11	17	31	45
Vehicles, Saddlery, Harness, &c. ...	1,592	2,541	2,667	3,683	4,055
Ship and Boat Building, and Repairing ...	1,132	1,541	1,595	1,796	1,995
Furniture, Bedding, and Upholstery ...	1,183	2,140	2,317	2,846	3,218
Drugs, Chemicals, and By-products ...	331	450	1,012	1,202	1,342
Surgical and other Scientific Instruments ...	35	69	86	84	87
Jewellery, Timepieces, and Plated Ware ...	102	165	457	608	658
Heat, Light, and Power ...	859	1,417	1,883	2,332	2,516
Leatherware, N.E.I. ...	33	117	240	322	392
Minor Wares, N.E.I. ...	448	391	681	817	939
Total ...	49,840	66,230	77,822	91,702	99,746

Coincident with the decrease in live stock, there was a decline in the industries dealing with pastoral products, which, however, have since improved. Establishments working in connection with stone, clay, glass, &c., show an increased employment, due largely to the expansion of the brickyards; and the increase in woodworkers is due mainly to the increased business of saw-mills and joinery works, indicating greater activity in the building trades. Metal works show a great advance since 1896, and almost every branch of the industry discloses an improvement, the most noticeable being smelting, railway workshops, and carriage building, ironworking and engineering. The clothing industry shows a general increase in almost all its branches. In furniture-making there has been a large increase of employees; but the industry is, to a great extent, in the possession of the Chinese. The extension of electric power has led to a considerable increase of employment, and in the minor industries there is also evidence of greater activity.

The following table has been prepared to show concisely the principal details respecting each class of industry for the year 1910:—

Class of Industry.	Number of Establishments.	Average number of Employees.			Average time worked per employee.	Amount of Wages paid.	Average Horsepower of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
					Months	£	No.	£
Treating Raw Materials, &c. ...	289	3,913	73	3,986	9'96	323,544	4,024	354,562
Oils and Fats, &c. ...	43	568	197	765	11'72	60,409	656	174,001
Processes in Stone, Clay, Glass, &c. ...	298	4,820	62	4,882	10'83	453,537	8,784	695,062
Working in Wood ...	620	7,382	41	7,423	10'72	630,216	12,119	609,607
Metal Works, Machinery, &c. ...	476	20,587	116	20,703	11'27	2,378,610	22,173	2,670,504
Connected with Food and Drink, &c. ...	767	10,180	2,988	13,118	11'11	1,158,523	17,804	2,887,467
Clothing and Textile Fabrics, &c. ...	936	7,325	17,272	24,597	11'80	1,397,639	2,830	442,845
Books, Paper, Printing, &c. ...	407	6,524	2,118	8,642	11'89	807,754	3,460	915,848
Musical Instruments ...	13	347	36	383	11'88	40,337	177	9,630
Arms and Explosives ...	5	36	15	45	6'24	2,080	13	1,280
Vehicles, Saddlery, and Harness, &c. ...	361	3,975	80	4,055	11'81	346,991	762	85,114
Ship and Boat Building, &c. ...	42	1,995	...	1,995	11'89	222,101	2,505	362,855
Furniture, Bedding, and Upholstery ...	176	2,907	311	3,218	11'76	284,865	828	43,375
Drugs, Chemicals, and By-products ...	76	775	567	1,342	11'84	103,721	807	167,449
Surgical and other Scientific Instruments ...	11	68	19	87	12'00	6,991	14	3,951
Jewellery, Plated Ware, &c. ...	46	597	61	658	11'92	58,769	167	20,298
Heat, Light, and Power ...	178	2,468	48	2,516	11'84	326,860	52,991	2,068,638
Leatherware, N.E.I. ...	21	330	62	392	12'00	26,857	141	11,474
Minor Wares, N.E.I. ...	58	678	261	939	11'78	61,582	627	54,640
Total ...	4,823	75,419	24,327	99,746	11'51	8,691,386	130,862	11,578,620

Employees in the manufactories numbered 99,746, but only 83,898 were actually engaged in the different processes of manufacture, or in the sorting and packing of finished articles. The number of employees and their occupations were as follows :—

Class of Industry.	Working Proprietors, Managers, and Overseers.	Clerks, &c.	Engine-drivers, &c.	Workers in Factory, Mill, &c.	Carters, &c. Messengers, &c.	Persons regularly employed at their own homes.	Total.
Treating Raw Materials, &c. ...	409	93	214	3,120	150	...	3,986
Oils and Fats, &c. ...	65	70	20	582	17	11	765
Processes in Stone, Clay, Glass, &c. ...	391	152	181	4,013	144	1	4,882
Working in Wood ...	863	335	435	5,383	407	...	7,423
Metal Works, Machinery, &c. ...	915	647	415	18,567	159	...	20,703
Connected with Food and Drink, &c. ...	1,037	777	668	10,159	477	...	13,118
Clothing and Textile Fabrics, &c. ...	1,414	329	46	21,948	159	701	24,597
Books, Paper, Printing, &c. ...	790	551	38	7,129	132	2	8,642
Musical Instruments ...	18	20	2	341	2	...	383
Arms and Explosives ...	8	2	1	30	2	2	45
Vehicles, Saddlery and Harness, &c. ...	481	132	19	3,378	44	1	4,055
Ship and Boat-building, &c. ...	84	52	32	1,820	7	...	1,995
Furniture, Bedding, and Upholstery ...	247	46	11	2,873	39	2	3,218
Drugs, Chemicals, and By-products ...	118	110	29	1,060	25	...	1,342
Surgical and other Scientific Instruments ...	16	5	...	62	4	...	87
Jewellery, Timepieces, and Plated Ware ...	61	33	1	557	6	...	658
Heat, Light, and Power ...	175	121	466	1,725	39	...	2,516
Leatherware, N.E.I. ...	37	10	2	342	1	...	392
Minor Wares, N.E.I. ...	86	20	8	809	16	...	939
Total ...	7,215	3,505	2,578	83,898	1,830	720	99,746

*As stated above, the metropolitan district is the centre of the chief manufacturing industries, particularly those connected with clothing, printing, wool-scouring, and fellmongering, ship and boat building and repairing, the manufacture of furniture, drugs, and musical instruments, and the production of light, heat, and power. The following table shows the particulars of each class of industry in the metropolitan district during the year 1910 :—

Class of Industry.	Number of Establishments.	Average number of Employees.			Average time worked per Employee.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
Treating Raw Materials, &c. ...	106	2,203	69	2,272	Months 11-82	£ 222,054	No. 2,432	£ 220,270
Oils and Fats, &c. ...	21	370	163	538	11-70	43,799	439	112,969
Processes in Stone, Clay, Glass, &c. ...	92	2,732	37	2,769	10-70	276,752	3,090	294,786
Working in Wood ...	156	3,076	25	3,101	11-57	291,613	4,711	200,390
Metal Works, Machinery, &c. ...	309	12,478	99	12,577	11-91	1,347,722	6,398	980,953
Connected with Food and Drink, &c. ...	188	5,186	2,668	7,866	11-64	667,530	6,655	1,537,594
Clothing and Textile Fabrics, &c. ...	654	6,185	15,509	21,694	11-82	1,233,753	2,545	383,710
Books, Paper, Printing, &c. ...	209	5,117	2,027	7,144	11-88	683,826	3,107	715,419
Musical Instruments ...	13	347	36	383	11-88	40,337	177	9,630
Arms and Explosives ...	4	19	3	22	11-73	1,771	5	880
Vehicles, Saddlery, and Harness, &c. ...	125	1,950	65	2,015	11-26	181,313	457	37,077
Ship and Boat Building, &c. ...	32	1,896	...	1,896	11-99	213,993	2,444	359,503
Furniture, Bedding, and Upholstery ...	159	2,772	310	3,082	11-76	273,957	796	40,501
Drugs, Chemicals, and By-products ...	69	708	564	1,272	11-94	92,944	712	99,414
Surgical and other Scientific Instruments ...	10	67	19	86	12-00	6,991	13	3,801
Jewellery, Plated Ware, &c. ...	42	571	60	631	11-92	56,575	167	19,568
Heat, Light, and Power ...	82	1,354	48	1,402	11-97	190,990	42,765	1,458,211
Leatherware, N.E.I. ...	21	330	62	392	12-00	26,857	141	11,474
Minor Wares, N.E.I. ...	54	642	261	903	11-78	60,623	618	53,542
Total ...	2,346	407,955	22,030	69,985	11-77	5,913,650	77,672	6,540,292

INDUSTRIES TREATING RAW MATERIALS, THE PRODUCT OF PASTORAL AND AGRICULTURAL PURSUITS.

The decrease in the number of stock depastured, following on a succession of adverse seasons, necessarily reduced the production of raw material, and caused a decrease in the number of employees required in the treatment thereof, but during the last five years these industries have improved, and are steadily regaining their former importance.

Industries.	Number of Establishments.	Average number of Employees.			Average time worked per Employee.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
I.—TREATING RAW MATERIAL, &c.					Months	£	No.	£
Boiling-down and Tallow Refining	39	487	22	519	11·43	50,168	603	61,534
Sausage skins	6	224	...	224	11·86	17,627	...	760
Tanneries	76	1,013	10	1,023	11·89	102,057	1,073	83,302
Wool-scouring and Fellmongering	64	1,578	39	1,617	9·36	128,657	1,036	161,780
Chaff-cutting, &c.	104	601	2	603	6·31	25,035	712	47,186
Total	289	3,913	73	3,986	9·96	323,544	4,024	354,562

The figures do not include boiling-down and wool-washing works on stations, which are in operation only for a few weeks in each year. The number of employees varies considerably during the year, and in certain seasons many more persons are at work, especially at wool-scouring.

Tallow refining is not the important industry it was some fifteen years ago, when there was a large surplus of live stock to be disposed of each year, with the price of tallow high enough to encourage the disposal of stock in this manner. With the return of good seasons, together with an increase in prices, there has been an increase in the production of tallow since 1903.

Exclusive of operations on stations and large farms, carcases, fat, refuse, bones, etc., to the value of £723,218 were treated during 1910 in boiling-down and manure works, and produced 499,194 cwt. of raw and refined tallow, valued at £768,839; 373,960 cwt. of blood and bone manures, valued at £100,824; whilst the return from hides, oils, bones, and other by-products amounted to £47,636.

In wool-scouring works and fellmongeries 41,190,027 lb. of greasy wool and 6,615,200 skins were treated, producing 19,233,578 lb. and 20,787,808 lb., respectively, of scoured wool, valued in the aggregate at £2,404,185. The pelts obtained were valued at £82,552.

Included with wool-scouring works are the particulars of a wool-combing factory which has been established at Botany, near Sydney. The Bounties Act passed by the Federal Parliament in 1907 provides for the payment of a bounty for the encouragement of this industry. The rate of bounty is fixed at 1½d. per lb. of combed wool or tops exported for three years from 1st January, 1909, and at 1d. per lb. for two succeeding years; the maximum amount payable in any one year is £10,000. A very large proportion of the tops is exported to Japan.

In tanneries, 529,988 hides and 2,417 cwt. of hide pieces produced 13,902,660 lb. of leather, worth £771,359. In addition, 4,780,441 pelts were operated on, 455,452 valued at £11,916, being pickled. The others were converted into 4,130,469 lb. of basils, valued at £181,657. Other skins numbering 99,245 were also dealt with, the value after treatment being £12,361. Wattle bark to the extent of 10,251 tons was used for tanning purposes.

OILS AND FATS—ANIMAL, VEGETABLE, &C.

Industries.	Number of Establishments.	Average number of Employees.			Averagetime worked per Employee.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
II.—OILS, FATS, &c.					Months	£	No.	£
Oil and Grease	10	136	5	141	11·02	14,188	183	41,997
Soap and Candles	33	432	192	624	11·88	46,271	473	132,004
Total	43	568	197	765	11·72	60,409	656	174,001

SOAP AND CANDLE FACTORIES.

Tallow being one of the staple products, the manufacture of soap and candles, as might be expected, is firmly established. Common soap of local make is both cheaper and better than the imported article, and practically commands the market. High grade fancy and toilet soap is also manufactured.

With the extension of gas and electric lighting, which is now almost universal throughout the metropolitan district, and is used in many country towns, the consumption of candles had gradually decreased, with a corresponding decrease in the production, which had been almost wholly for local use. In recent years there has been an improvement, and an export trade with the other States has been established. The following table gives particulars of the soap and candle making industry during the last ten years:—

Year.	Soap and Candle Factories.	Employees.	Quantity manufactured.		Horse-power of Plant (full capacity).
			Soap.	Candles.	
	No.	No.	cwt.	lb.	H.-p.
1901	44	533	233,700	3,897,468	829
1902	40	425	175,822	2,965,766	533
1903	47	520	199,807	3,231,842	744
1904	46	508	208,677	3,984,035	556
1905	40	574	212,658	4,226,082	520
1906	41	602	221,834	5,076,048	522
1907	34	547	234,022	5,656,354	489
1908	29	553	232,441	5,566,776	454
1909	26	571	229,846	6,922,488	427
1910	33	624	251,662	6,689,875	648

During 1910, in addition to the commodities shown in the above table, 957,624 lb. of soap extract and powders were made. Tallow, 113,912 cwt.; alkali, 5,313,052 lb.; and other materials valued at £174,009 were used in the manufacture.

PROCESSES IN STONE, CLAY, GLASS, &C.

As the majority of these industries are closely associated with the building trade, the employment afforded reflects, to a great extent, the

condition of that trade. The number of employees shows a substantial increase since 1901. The details of each industry for 1910 were as follow :—

Industries.	Number of Establishments.	Average number of Employees.			Average time worked per employee.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
III.—STONE, CLAY, GLASS, &c.					Months	£	No.	£
Bricks and Tiles	220	2,484	30	2,514	10-59	229,045	3,811	358,811
Glass (including Bottles)....	8	746	...	746	9-42	55,449	63	20,641
Glass (Ornamental)....	16	207	3	210	11-86	19,614	82	6,444
Lime, Plaster, Cement, and Asphalt	24	763	4	767	11-88	82,924	4,379	258,408
Marble, Slate, &c.	10	209	...	209	12-00	25,247	185	12,642
Pottery, Earthenware Modelling, &c.	20	411	25	436	11-70	41,258	241	38,136
Total	298	4,820	62	4,882	10-83	453,537	8,764	695,082

BRICKWORKS.

Brickmaking is one of the most important industries connected with the building trade, and works have been established in proximity to nearly every large town throughout the State.

In 1891 there were 2,018 persons employed, and the output of bricks was 184,682,000. There was then a decline in building operations, and during the two years after the crisis of 1893 the output fell below 100,000,000. There has since been an improvement, and the output has steadily increased until it reached 251,546,000 in 1910. The following figures give the details of the industry during the last ten years :—

Year.	Brickworks.	Employees.	Bricks made.	Horse-power of Plant (full capacity).
	No.	No.	No.	H.-p.
1901	182	1,823	159,254,000	1,543
1902	182	1,973	180,727,000	1,986
1903	163	1,921	202,681,000	2,243
1904	165	1,893	154,480,000	2,701
1905	172	2,006	162,643,000	2,974
1906	187	2,147	172,010,000	3,172
1907	186	1,844	195,594,000	3,535
1908	189	1,919	214,606,000	3,853
1909	201	2,108	222,558,000	4,547
1910	220	2,514	251,546,000	5,382

The growth of brickmaking during the last three years is the result of the remarkable activity of the building trades, especially in the metropolitan and suburban areas. In consequence of the expansion of its commercial and industrial interests, the City of Sydney is undergoing a process of rebuilding, and inferior dwellings are giving place to large factories and commercial premises. The activity in the suburbs is due to the general prosperity, and to the improvement in transit facilities, which has opened up large areas to accommodate the population hitherto resident in the city. The requirements of the railways and other public works have also been on an increased scale, and the Government has established State brick-works at Homebush Bay, near Sydney, which, when complete, will be capable of producing 1,500,000 bricks a week. A factory is also being erected by the Government at Botany for making sand-line bricks, and the capacity of the machinery now being installed will be 250,000 bricks per week.

The manufacture of tiles, pottery, and earthenware is usually carried on in conjunction with brickmaking, although there are establishments devoted solely to this branch of the industry. The value of the tiles, pottery, and earthenware manufactured in 1910 was £129,691.

WORKING IN WOOD.

These industries are largely connected with the preparation and supply of building materials, and, as in the class immediately preceding, afford a reliable index to the state of the building trade.

Industries.	Number of Establishments.	Average number of Employees.			Average time worked per Employee.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
IV.—WORKING IN WOOD.								
Boxes and Cases	35	572	6	578	Months 10.39	£ 50,752	No. 826	£ 2,983
Cooperage	16	258	.....	258	12.00	22,429	265	20,309
Joinery...	100	1,567	5	1,562	11.72	142,432	1,738	73,100
Saw-mills	437	4,800	26	4,826	10.33	397,722	9,114	470,081
Wood Turning, &c...	32	195	4	199	11.70	16,581	176	13,134
Total	620	7,382	41	7,423	10.72	630,216	12,119	609,607

Of the 7,423 persons employed in these industries, 3,101 were engaged in the metropolitan district, and 4,322 in the country, the employment in the latter district being almost wholly in connection with saw-mills, which provided work for 3,881 persons.

SAW-MILLS.

The total number of employees in saw-mills numbered 4,826, which shows an increase of over 21 per cent., compared with the figures for 1907. The details of the industry during the last ten years were as follow :—

Year.	Saw-mills.	Employees.	Plant and Machinery.		Year.	Saw-mills.	Employees.	Plant and Machinery.	
			Power (full capacity).	Value.				Power (full capacity).	Value.
	No.	No.	H.-p.	£		No.	No.	H.-p.	£
1901	345	4,088	6,547	273,883	1906	338	3,642	6,587	260,810
1902	331	3,930	6,536	273,402	1907	377	3,983	8,713	332,239
1903	333	3,936	6,857	289,258	1908	385	4,127	9,367	367,005
1904	324	3,655	6,379	285,935	1909	407	4,307	10,947	370,671
1905	339	3,886	6,848	286,011	1910	437	4,826	11,961	470,081

During 1910 the output of sawn timber from locally grown logs amounted to 142,561,000 superficial feet, of which 98,260,000 superficial feet, or more than two-thirds, represented hard-woods. The number of imported logs operated on was comparatively small, and produced only 5,718,000 superficial feet of sawn timber, of which 4,957,000 feet represented soft-woods.

The growth of the employment in box factories is a testimony to the great advances made by the export trade in butter and rabbits, the former being despatched in boxes and the latter in crates. As showing the increased employment, it may be mentioned that in 1900 there were only 149 employees in these establishments, as compared with 578 in 1910.

METAL WORKS, MACHINERY, &c.

The industries included in this class are the most important to the industrial workers in the State, regarded from the aggregate wage aspect, although the clothing trade employs a greater number of persons.

The following table shows the employment afforded, and other particulars, for each branch of the industry during 1910 :—

Industries.	Number of Establishments.	Average number of Employees.			Average time worked per Employee.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery and Plant.
		Males.	Females.	Total.				
V.—METAL WORKS, MACHINERY, &c.					Months	£	No.	£
Agricultural Implements ...	21	595	5	600	11·99	53,630	162	18,575
Art Metal Works ...	5	36	...	36	10·83	3,390	17	1,450
Brass and Copper ...	15	240	...	240	12·00	19,212	86	15,459
Cutlery ...	6	31	1	32	12·00	3,257	17	1,885
Engineering ...	164	5,026	23	5,049	11·53	492,134	3,059	394,027
Galvanised Iron ...	36	702	12	714	11·87	63,314	268	40,441
Ironworks and Foundries ...	64	2,386	6	2,402	11·90	228,380	2,787	184,986
Nails ...	4	99	...	99	12·00	8,657	166	19,238
Railway Carriages, &c. ...	4	888	3	891	12·00	92,094	350	50,576
Railway and Tramway Workshops	22	5,364	13	5,377	12·00	635,625	2,984	459,999
Smelting ...	37	3,287	5	3,292	11·01	536,312	11,884	1,358,607
Stoves and Ovens ...	12	414	5	419	12·03	38,167	150	21,062
Tinsmithing ...	62	722	32	754	11·96	55,890	183	31,367
Wireworking ...	12	538	4	512	12·00	53,567	347	43,054
Other Metal Works (including Lead Mills) ...	12	279	7	286	11·62	34,931	363	29,778
Total ...	476	20,587	116	20,703	11·27	2,378,610	22,173	2,670,504

In 1900 there were only 12,932 persons engaged in works of this class, so that there has been an increase of 7,771, or 60 per cent. since that year. The chief increase is in works connected with the manufacture and repairs of railway engines and carriages, which show 3,006 more employees; but this is expected, in view of the large increase in rolling-stock, consequent upon the development of the railways and the extension of the metropolitan tramway system. Engineering works show an increase of 1,852 employees since 1900, the increase during the last three years being due partly to the local manufacture of locomotives; in ironworks 1,078 more persons are employed.

In considering the figures in the above table it should be remembered that the work carried out at the railway and tramway workshops is of such a character that the particulars shown under this heading and for engineering should be taken together.

The building of the Australian warships, a contract for which has been placed with the Fitzroy Dock, Sydney, will give considerable impetus to the iron trades. Steel rails for the local railways are made at Lithgow; this industry may be said to be in its infancy, but the prospects of future developments are favourable.

In smelting works there are now 231 more persons employed than there were in 1900. The bulk of the work done is in connection with the treatment of silver and lead ores; but there are other establishments dealing with gold, copper, tin, and other ores, which are brought from all parts of Australia, also from New Caledonia. Quartz batteries are excluded from these figures,

but establishments using a cyanide plant are included. Within recent years, zinc-extracting plants on an extensive scale have been established in the State, and at Broken Hill and elsewhere great attention is being directed to this matter. Further details in connection therewith are given in the chapter dealing with "Mining Industry."

Under the Manufactures Encouragement Act, 1908, passed by the Commonwealth Parliament, the payment is authorised, under certain conditions, of bounties on pig-iron, puddled-iron, and steel, galvanized-iron, and wire-netting of Australian manufacture. The bounty paid during the year ended 30th June, 1911, on iron and steel produced at Lithgow, amounted to £24,603, and on wire-netting made in Sydney, £4,824.

INDUSTRIES CONNECTED WITH FOOD AND DRINK, AND NARCOTICS.

From the figures given in an earlier part of this chapter it would appear that industries connected with food and drink have increased but little in importance since 1900, since the employees then numbered only 3,545 less than in 1910. Investigation shows, however, that there have been large individual increases in several industries, notably confectionery, biscuits, and tobacco, but these have been counter-balanced by a decline in sugar-milling, and in meat-preserving. In 1910 there were 13,118 persons usually employed in this class, but the number fluctuates considerably during the year, as employment in establishments manufacturing aerated waters, butter, cheese, flour, sugar, and jam varies with the seasons. The following table shows the average number of persons employed in each industry during 1910:—

Industries.	Number of Establishments.	Average number of Employees.			Average time worked per Employee.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females	Total.				
CLASS VI.—FOOD AND DRINK, &c.					Months.	£	No.	£
Bacon-curing	10	165	1	166	11·61	20,145	144	17,389
Butter Factories and Creameries	148	929	10	939	11·85	100,174	2,181	219,591
Butterine and Margarine ..	4	40	2	42	12·00	4,908	52	4,100
Cheese Factories.	31	81	2	83	11·49	6,771	44	8,243
Condensed Milk	2	24	..	24	12·00	1,599	40	3,845
Meat and Fish Preserving ..	12	721	118	839	10·11	73,434	133	23,122
Biscuits	6	554	612	1,166	12·00	69,483	363	78,272
Confectionery	36	673	423	1,096	11·85	69,247	308	59,879
Cornflour, Oatmeal, &c. ..	14	247	202	449	12·00	34,926	404	54,275
Flour-mills	72	933	7	945	11·03	117,986	4,288	326,502
Jam and Fruit Canning ..	16	416	372	788	9·79	43,149	155	19,791
Pickles, Sauces, and Vinegar ..	18	143	157	300	12·00	18,171	42	9,697
Sugar Mills	4	506	..	506	5·03	33,367	2,578	515,512
Sugar Refinery	1	503	18	521	12·00	69,959	1,043	449,948
Aerated Waters, Cordials, &c. .	230	1,251	116	1,367	11·37	97,676	657	141,490
Breweries	38	824	1	825	11·97	112,623	815	283,264
Condiments, Coffee, Spices, &c. .	18	196	184	380	11·91	22,537	199	24,874
Distilleries	3	21	..	21	11·24	2,814	51	42,565
Ice and Refrigerating	78	1,204	6	1,210	9·97	135,274	3,704	458,388
Malting	4	39	..	39	9·26	5,652	176	20,637
Tobacco, Cigars, &c. .. .	13	656	757	1,412	11·99	118,325	337	125,703
Total	767	10,130	2,988	13,118	11·11	1,153,523	17,804	2,887,407

In the preparation of food and drink, machinery is largely used, as will be seen from the figures given above. The production from the butter and cheese factories is not included in the value of production from manufacturing, as it belongs essentially to the dairying industry, with which it has been tabulated. Creameries are not considered as separate establishments when worked in conjunction with butter factories; but the persons employed are included in the figures given. There has been an enormous

increase in the quantity of butter made in recent years, especially in the factory-made article, and particulars of the machinery in use and the number of persons employed during each of the last ten years are given in the following table. The number of factories and of employees do not coincide with those shown in the preceding table, as they include factories on farms, the employees in which (392 males and 3 females in 1910) are not exclusively engaged in manufacturing dairy products, but in general farm labour, and are consequently included elsewhere:—

Year.	Factories.								Estimated Value of Plant and Machinery.	Machinery in use.						Persons employed.	
	Butter only.	Creameries only.	Cheese only.	Bacon and Ham only.	Butter and Cheese.	Butter and Bacon.	Butter, Cheese, and Bacon.	Total.		Engines.	Horse-power.	Butter Workers.	Churns.	Cream Separators.	Cheese Presses.	Males.	Females.
	No.	No.	No.	No.	No.	No.	No.	£	No.	No.	No.	No.	No.	No.	No.	No.	No.
1901	153	479	21	14	12	5	1	690	260,543	734	3,753	163	269	772	116	1,536	71
1902	163	306	31	18	6	3	1	528	263,764	576	3,207	153	274	571	147	1,304	56
1903	153	284	31	16	4	3	3	494	246,350	552	3,094	163	262	486	146	1,373	33
1904	145	271	28	14	4	3	1	465	251,322	525	3,066	178	257	431	96	1,364	26
1905	153	255	36	16	3	..	..	463	277,008	546	3,179	195	289	425	104	1,342	9
1906	170	193	57	20	4	..	1	445	255,109	511	3,453	199	311	358	105	1,420	33
1907	176	140	36	16	6	..	..	374	278,380	447	3,413	213	321	274	113	1,309	30
1908	160	172	42	17	3	3	..	397	287,771	466	3,526	197	283	270	123	1,301	24
1909	168	222	43	17	4	1	..	455	286,517	524	3,909	201	291	310	131	1,398	25
1910	157	346	46	19	5	..	..	573	319,111	680	4,725	188	282	441	138	1,591	16

MEAT-PRESERVING AND REFRIGERATING WORKS.

In view of the smaller number of live stock, it is only natural that the operations of meat-preserving have declined; but during the past year considerable activity was displayed. There were 839 persons employed in 1910, as against 956 in 1901. The carcasses of 36,145 cattle and 1,093,577 sheep were treated in meat-preserving works, and of 10,357 cattle and 2,226,750 sheep in refrigerating works.

For meat-preserving 2,445,525 lb. of meat were also obtained, in addition to 253 pigs. The output of tinned meat was 23,095,155 lb., valued at £420,056, and other products were valued at £450,178. The output of the meat-preserving and ice and refrigerating works during 1910 was valued at £4,297,662, an increase of £729,812 as compared with the previous year. This includes 35,545 tons of ice, valued at £55,990, made at the ice-works.

FISH-PRESERVING.

Fish-preserving is a neglected industry in Australia. Although the waters along the coasts are teeming with edible fishes the local market is supplied almost entirely by importation. With a view to encouraging the industry the Commonwealth has provided a bounty of $\frac{3}{4}$ d. per lb. up to a maximum of £10,000 per annum, payable for five years from 1st July, 1907, for fish preserved in Australia.

FLOUR MILLS, BISCUIT FACTORIES, &c.

The amount of mill-power for grinding and dressing grain is ample for treating the flour consumed in the State, and an export trade of growing importance is maintained.

In consequence of the failure of the wheat crop for the 1902-3 season, the operations of the flour-mills were much restricted; but with the return of good seasons the industry resumed its normal position. In 1908 the lessened

output was due to the decrease in the yield of wheat. The following table shows various details regarding flour mills for a period of ten years :—

Year.	Flour Mills.	Employees	Wheat treated.	Flour made.	Plant and Machinery.	
					Power (full capacity).	Value.
	No.	No.	Bushels.	Tons.	H.-p.	£
1901	89	889	9,369,534	191,504	4,421	254,335
1902	81	812	8,853,048	185,147	4,495	267,372
1903	79	751	6,030,409	121,074	4,947	262,297
1904	81	875	10,418,979	210,137	4,851	293,328
1905	78	875	10,117,793	205,805	5,158	294,760
1906	78	873	11,151,126	225,995	5,532	297,859
1907	74	858	11,617,905	237,614	4,342	273,459
1908	68	792	8,737,228	180,843	5,609	284,954
1909	71	860	10,466,329	214,426	6,126	307,321
1910	72	945	12,045,148	242,813	6,083	326,502

During 1910 the output of bran and pollard amounted to 63,254 tons and 41,132 tons respectively, valued at £440,533. The value of other products amounted to £24,590. There does not appear to be any fixed proportion for these by-products, especially in the country districts, as the quantity of each article is regulated solely by the immediate supply and demand.

The manufacture of oatmeal and maizena and biscuit-making are also firmly-established industries. In the biscuit factories 6,434 tons of flour were used during 1910, and 19,711,000 lb. of biscuits, valued at £425,106, were made.

JAM AND PICKLE FACTORIES.

The principal articles produced in jam and pickle factories during the same year were 22,586,200 lb. of jam and preserves, 608,539 lb. of candied peel, 51,520 lb. of dried and evaporated fruit and pulp, 1,977,850 pints of pickles, 2,269,505 pints of sauces, and 683,840 gallons of vinegar. In view of the natural resources of the State, jam-making and fruit-canning are not such large industries as might be expected, and large quantities of fruit and vegetables are wasted every year, owing to difficulties of transporting raw produce to the markets. The projected construction of the trans-continental railway and other large works should create a considerable demand for tinned foods.

CORDIAL FACTORIES.

Particulars regarding the output of aerated-water factories are now available, and show that during 1910 the following articles were produced, viz. :— 928,638 syphons and 4,372,916 dozen bottles of aerated and carbonated waters, 145,798 dozen of cordials and syrups, 240,821 dozen of hop beer, 771,710 dozen of ginger beer, and £4,052 worth of other cordials. The persons employed show an increase of 244 since 1900, but the number varies with the season of the year, the greatest number at work in 1910 being 1,591.

BREWERIES.

The number of breweries is becoming less each year, and the number of persons engaged is 191 less than in the year 1901, but the output shows a large increase during the last four years. The materials used in breweries for manufacturing purposes and the actual output were :—

Year.	Malt.	Hops.	Sugar.	Other Material.	Ale, Beer, &c., manufactured.
	Bushels.	lb.	Tons.	Centals.	Gallons.
1903	466,673	601,339	3,495	10,081	14,211,888
1904	441,844	557,400	3,252	10,133	13,651,208
1905	458,371	558,661	3,370	6,209	13,873,239
1906	488,982	586,438	3,405	5,530	14,032,390
1907	533,825	636,650	3,651	4,996	15,361,227
1908	559,950	677,884	3,842	4,291	16,202,242
1909	571,526	681,614	3,871	6,440	16,754,728
1910	604,366	718,994	4,119	8,392	17,855,373

The output shown above is the actual quantity manufactured, and differs from the figures in the following table, which give the quantity on which excise was paid :—

Year.	Breweries.	Employees	Ale, Beer, &c., manufactured, which paid Excise.	Horse-power of Plant (full capacity).	Year.	Breweries.	Employees	Ale, Beer, &c., manufactured, which paid Excise.	Horse-power of Plant (full capacity).
	No.	No.	Gallons.	H.p.		No.	No.	Gallons.	H.p.
1901	51	1,016	13,253,600	1,477	1906	39	881	13,587,336	1,087
1902	46	1,033	14,029,648	1,074	1907	38	854	14,994,537	1,253
1903	45	969	13,201,098	982	1908	37	885	15,791,878	1,426
1904	42	968	12,877,757	961	1909	37	831	16,154,906	1,416
1905	42	1,028	13,248,336	1,089	1910	38	825	17,411,827	1,466

The local malt works treated 239,013 bushels of barley during 1910, and produced 224,241 bushels of malt, valued at £66,906.

DISTILLERIES.

There are three distilleries in the State, two of which are wine distilleries, the output being 13,990 proof gallons of brandy from 82,032 gallons of wine; the other establishment is worked in connection with sugar-refining, and used 260,241 cwt. of molasses in 1910 for 1,191,371 gallons of proof spirit. The following is a statement of distilleries since the year 1901 :—

Year.	Distilleries.	Employees.	Molasses Used.	Spirit distilled therefrom.
			cwt.	proof gallons.
1901	1	10	24,237	88,680
1902	1	10	168,714	479,559
1903	2 ^a	18	128,635	593,131
1904	2 ^a	16	140,973	662,141
1905	2 ^a	18	125,530	620,887
1906	2 ^a	17	133,409	634,240
1907	2 ^a	17	168,100	863,131
1908	2 ^a	24	163,270	844,416
1909	3 ⁺	29	222,554	1,132,917
1910	3 ⁺	21	260,241	1,191,371

^a Includes one wine distillery.

⁺ Includes two wine distilleries.

A number of vigneronns are licensed by the Customs Department to distil spirit for fortifying purposes, and during the year 100,359 gallons of wine produced 18,760 proof gallons of brandy.

SUGAR MILLS.

The manufacture of sugar has long been an important industry, and so far back as 1878 there were 50 mills, of which 24 used steam-power, and 26 were worked by cattle, the number of employees being 1,065. These had increased in the year 1886 to 83 steam-mills and 19 worked by cattle, whilst the number of men employed and the quantity of sugar and molasses produced had correspondingly increased; but since that time the fall in the value of sugar has caused the closing of all the smaller establishments. Almost everywhere the tendency to concentrate the manufacture of sugar in large central establishments is increasing, and the small mills are rapidly disappearing to make room for larger, where business is confined strictly to the industrial process of sugar-making, the planters attending solely to the cultivation of the cane. Many of the farmers on the North Coast have abandoned sugar-growing in favour of dairying, consequently the area under cane is much smaller than it was ten years ago, and the production has correspondingly decreased. There are at present only 4 mills in the State, and employment is afforded to a smaller number of persons than were engaged ten years ago :—

Year.	Sugar Mills.	Employees.	Quantity manufactured.		Horse-power of Plant (full capacity).
			Sugar.	Molasses.	Steam.
	No.	No.	cwt.	Gallons.	H.-p.
1901	12	695	390,375	1,300,909	2,995
1902	8	633	430,884	1,073,640	3,407
1903	6	586	435,718	1,367,020	3,146
1904	6	643	400,150	1,296,590	3,146
1905	5	652	402,040	1,263,100	3,140
1906	5	622	479,993	1,305,466	3,485
1907	5	610	583,446	1,211,000	3,491
1908	4	543	299,920	922,549	3,196
1909	4	529	296,200	1,072,400	3,180
1910	4	506	402,300*	918,900*	3,196

* From 160,311 tons of sugar-cane.

SUGAR REFINERY.

There is only one sugar refinery in the State, and it treats both local and imported sugars, so that its operations are extending each year. The persons employed show a great decrease since 1900, but owing to increased power and improvements in plant, the quantity of sugar treated has increased. The following table shows particulars of the industry since 1901. The sugar-cane treated in 1910 represented 1,678,960 cwt. of refined sugar :—

Year.	Sugar Refinery.	Persons Employed.	Cane Sugar Melted.	Refined Sugar.	Horse-power of Plant (full capacity).	Year.	Sugar Refinery.	Persons Employed.	Cane Sugar Melted.	Refined Sugar.	Horse-power of Plant (full capacity).
	No.	No.	cwt.	cwt.	H.-p.		No.	No.	cwt.	cwt.	H.-p.
1901	1	450	1,246,600	1,177,760	1,000	1906	1	454	1,459,400	1,406,000	932
1902	1	531	1,179,200	1,141,800	958	1907	1	431	1,554,200	1,514,840	1,031
1903	1	415	1,284,380	1,250,560	973	1908	1	487	1,732,000	1,695,080	982
1904	1	390	1,313,800	1,276,820	974	1909	1	555	1,896,500	1,848,180	1,024
1905	1	410	1,368,000	1,317,500	948	1910	1	521	1,779,740	1,678,960	1,307

TOBACCO FACTORIES.

Tobacco of local manufacture is, to a large extent, superseding the imported article; the cigarettes made in this State now practically command the Australian market; and the manufacture of cigars is also increasing.

A large amount of imported leaf is used in the manufacture of tobacco, the proportion of locally-grown tobacco being less than one-third. As shown in the chapter on "Agriculture," the acreage and production of tobacco declined in each year from 1897 to 1901. A decided increase was noticeable in later years, as a result of efforts to stimulate the industry, the manufacturers having arranged to take all the leaf grown, at fixed prices according to quality; but since 1904 the quantity of Australian-grown leaf has gradually decreased. The following table shows details of the operations of tobacco factories for the last ten years. The large increase in the number of females is principally due to the extension of cigarette making :—

Year.	Establishments.		Employees.		Tobacco Leaf used.		Tobacco, Cigars, and Cigarettes manufactured.			Plant and Machinery.	
	Tobacco.	Cigars and Cigarettes.	Males.	Females.	Australian grown Leaf.	Imported Leaf.	Tobacco.	Cigarettes.	Cigars.	Power (full capacity).	Value.
	No.	No.	No.	No.	lb.	lb.	lb.	lb.	lb.	H.p.	£
1901	6	14	621	440	883,615	2,114,456	2,524,231	457,276	67,128	302	69,124
1902	5	13	678	440	966,156	2,520,581	3,089,613	634,175	66,330	338	82,269
1903	5	18	569	426	1,009,745	2,714,578	3,329,938	790,697	45,297	462	92,355
1904	4	17	643	376	1,256,339	2,709,569	3,404,201	829,851	47,756	464	106,793
1905	4	16	573	391	1,145,923	2,606,702	3,318,719	818,400	48,850	425	104,766
1906	5	20	649	397	1,178,183	3,056,906	4,057,965	837,835	50,326	431	104,226
1907	5	23	622	497	1,050,107	3,254,656	3,899,196	972,875	54,048	435	111,346
1908	3	25	665	674	1,039,909	3,549,966	3,916,388	1,119,269	57,716	567	119,723
1909	2	23	629	631	847,030	3,570,143	3,694,918	1,300,045	57,148	571	120,216
1910	3	22	659	763	815,809	4,130,059	3,850,154	1,548,872	73,194	589	125,703

In addition to the factories enumerated in a previous table, several other establishments licensed by the Customs Department are included above.

For the year 1901 the figures, showing the Australian-grown tobacco leaf used, represent New South Wales leaf only.

CLOTHING AND TEXTILE FABRICS.

These industries afford the greatest employment numerically, but in point of production and wages paid per employee they are below several of the other classes. Since 1900 the number of persons employed has increased by 11,536, of whom 2,001 were males and 9,535 females. In the earlier year males represented 47 per cent. of the total employees, and in 1910 only 30 per cent. The number of persons engaged in each branch of the industry is shown in the following table :—

Industries.	Number of Establishments.	Average number of Employees.			Average time worked per employee	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery Plant, &c.
		Males.	Females.	Total.				
CLASS VII.—CLOTHING AND TEXTILE FABRICS, &c.					Months.	£	No.	£
Woolen and Tweed Mills ..	8	319	429	748	11·74	44,349	781	109,473
Boots and Shoes ..	106	2,866	1,609	4,475	11·91	331,985	800	149,228
Slop Clothing ..	86	938	4,817	5,750	11·83	301,737	262	33,035
Clothing (Tailoring) ..	315	2,084	2,805	4,889	11·85	365,415	32	14,845
Clothing (Waterproof and Oilskin) ..	3	19	77	96	12·00	6,308	15	2,380
Dressmaking and Millinery (makers' material) ..	189	75	3,796	3,871	11·89	138,112	40	9,560
Dressmaking and Millinery (customers' material) ..	124	3	976	979	11·56	21,652	9	4,042
Dyeworks and Cleaning ..	8	34	27	61	12·00	4,613	8	2,223
Furriers ..	3	19	21	40	12·00	2,885	1	240
Hats and Caps ..	29	454	944	1,398	11·22	70,905	281	52,057
Shirts, Ties, and Scarfs ..	42	134	1,529	1,663	11·56	65,772	186	18,673
Rope and Cordage ..	5	212	3	215	12·00	18,921	222	32,370
Sailmaking ..	5	23	3	26	12·00	2,116	2	225
Tents and Tarpaulins ..	13	150	236	386	12·00	22,869	121	9,494
Total ..	936	7,325	17,272	24,597	11·80	1,397,639	2,830	442,845

A large number of females now find employment in making shirts, ties, and scarfs. The industry is comparatively new, for in 1898 only 74 persons were thus engaged, and in 1900, before the Federal tariff came into operation, 133. In 1910 the number was 1,529.

There has been a large increase in the number of persons engaged in the clothing trade, in "slops" and order work the employees having increased by 100 per cent. since 1900; in the former trade more attention is being devoted to the manufacture of ready-made costumes for women.

With the development of the defence scheme, an expansion of the tent-making industry is expected. The number of persons now employed in tent and tarpaulin making is 386, of whom 236 are machinists.

WOOLLEN AND TWEED MILLS.

Although one of the greatest wool-producing countries in the world, only 748 persons find employment in the manufacture of woollen materials. Woollen-mills were amongst the earliest works established in the State, but the industry has progressed but little since its inception, and the number of persons employed until the last four years, when a decided increase took place, had practically remained stationary for forty years. Details of the persons employed, and the output for the last ten years, are given below:—

Year.	Woollen Mills.	Persons Employed.			Woollen Cloth and Tweed manufactured.	Horse-power of Plant (full capacity).
		Males.	Females.	Total.		
	No.	No.	No.	No.	yds.	H.-p.
1901	4	162	72	234	525,020	325
1902	4	172	104	276	566,296	305
1903	4	170	110	280	458,302	330
1904	3	148	97	245	481,289	305
1905	3	151	111	262	459,590	329
1906	5	160	178	338	498,164	327
1907	5	179	216	395	512,640	397
1908	5	210	245	455	524,885	476
1909	7	283	345	628	594,512	924
1910	8	319	429	748	804,146	1,188

During 1910, 797,356 lb. of scoured wool were used in the mills, and, in addition to the cloth shown above, there were manufactured flannel, blankets, rugs, and shawls to the value of £33,112. The quantity of cloth manufactured showed no signs of increase until the latter half of 1905, and it is apparent that a disinclination has existed, on the part of purchasers, to buy clothing made from locally-made tweed, although the mills are capable of producing cloth of very high quality. Since 1905 there has been an improved demand for locally-made cloth; and efforts are being made to overcome the prejudice by producing articles of such quality and variety as to compare favourably with the imported goods. The increased output during 1910 is very satisfactory.

BOOT AND SHOE FACTORIES.

The progress of the boot and shoe factories has been more satisfactory, but in the interim report of the Shortage of Labour Commission it is stated that the production seems to have reached a point beyond which it cannot

advance, and from which it is likely to recede, with the present resources in skilled labour. The introduction of 150 female operatives was recommended.

Year.	Boot and Shoe Factories.	Persons Employed.			Output (as returned by manufacturers).	
		Males.	Females.	Total.	Boots and Shoes made.	Slippers, and Canvas and Cloth Shoes made.
	No.	No.	No.	No.	Pairs.	Pairs.
1901	100	2,861	1,118	3,979	2,821,724	512,584
1902	102	2,886	1,212	4,098	3,052,914	451,588
1903	93	2,938	1,350	4,288	3,166,475	397,531
1904	92	2,858	1,459	4,317	3,291,087	477,302
1905	98	3,021	1,444	4,465	3,250,243	435,912
1906	102	3,178	1,589	4,767	3,567,555	378,599
1907	102	3,163	1,623	4,786	3,637,868	460,132
1908	105	3,048	1,602	4,650	3,672,244	440,571
1909	102	2,854	1,606	4,460	3,597,359	408,527
1910	106	2,866	1,609	4,475	3,820,633	502,731

A striking feature of the above table is the large increase in the employment of females. During the ten years the number of males increased by 5, while the females increased by 491, or 44 per cent., and now represent more than one-third of the employees.

HAT AND CAP FACTORIES.

There has been a great expansion in the establishments connected with the manufacture of hats and caps. Until 1898 less than 100 persons were employed, but each year has seen an increase, and in the eight years from 1903 to 1910 there was an average annual increase of about 115 employees:—

Year.	Hat and Cap Factories.	Persons Employed.			Power of Machinery.	Value of Plant and Machinery.
		Males.	Females.	Total.		
	No.	No.	No.	No.	H.-p. (full capacity).	£
1901	10	132	198	330	27	7,034
1902	10	185	289	474	37	19,422
1903	15	225	318	543	142	22,152
1904	18	269	460	729	139	26,117
1905	21	318	586	904	120	29,650
1906	23	342	694	1,036	144	32,570
1907	22	335	759	1,094	175	35,653
1908	26	361	860	1,221	216	34,315
1909	30	398	951	1,349	247	39,966
1910	29	454	944	1,398	382	52,057

The hats and caps manufactured during 1910 numbered 2,384,197, valued at £228,644. Rabbit-skins are largely used in the making of felt hats.

BOOKS, PAPER, PRINTING, &c.

These industries give employment to 8,642 persons, who are mostly engaged in printing or bookbinding; the number engaged in manufacturing was only 1,159, the greater portion of whom were employed in making paper bags or boxes. In the process of bookbinding and in the manufacture of paper boxes and bags, women are largely employed, and their employment is increasing; in 1900, females represented 14 per cent. of the total employees, as against 25 per cent. in 1910. The details of each industry for the latter year were as follow:—

Industries.	Number of Establishments.	Average number of Employees.			Average time worked per employee.	Amount of Wages paid.	Average Horse-power of machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
CLASS VIII.—BOOKS, PAPER, PRINTING, &c.								
Electrotyping and Stereotyping...	4	39	...	39	Months 12-00	£ 4,250	No. 33	£ 7,644
Paper-making, Paper-boxes, Bags, &c.	28	466	693	1,159	11-63	67,173	756	92,486
Photo-engraving	18	188	15	203	12-00	18,172	67	18,347
Printing and Binding	357	5,831	1,410	7,241	11-93	718,159	2,604	797,371
Total	407	6,524	2,118	8,642	11-89	807,754	3,460	915,848

MUSICAL INSTRUMENTS.

There are thirteen establishments engaged in the manufacture and repairing of musical instruments and sewing machines, and they employed 347 males and 36 females, who received wages amounting to £40,337. The machinery in use was 177 horse-power, and the value of the machinery and plant £9,630. The most important of the industries is piano-making, and instruments of a high class are now being produced.

ARMS AND EXPLOSIVES.

The manufacture of small arms and ammunition is a matter of national importance, which has occupied the attention of the Commonwealth Government, and machinery in now being installed in a small arms factory at Lithgow which will be opened at an early date. In New South Wales there are only five establishments for the manufacture of explosives, which employed 30 males and 15 females during 1910, and paid £2,080 in wages. The machinery in use was 13 horsepower, and the value of machinery and plant £1,280.

VEHICLES, SADDLERY, HARNESS, &c.

The greater portion of the work done in these establishments is connected mainly with the repair of vehicles; but there are many establishments where coaches and waggons are built throughout. With the extension of the railways and tramways, and the introduction of other improvements in methods of locomotion, this industry cannot be expected to show much further development. But with a gradual increase during the last eight years, the employees in 1910 exceeded those in 1903 by 933. In many establishments in the Metropolitan district persons are now employed in the motor trade who were previously engaged in building vehicles for horse traction. Motors for commercial and other uses are now largely used, especially in the city; in most cases the chasses are imported, and the bodies are built locally. Other industries in this class, such as cycle-building, are

growing in importance, and the whole group of industries employs 1,953 persons more than in 1903. The following table shows the operations of each industry during 1910 :—

Industries.	Number of Establish- ments.	Average number of Employees.			Average time worked per employee.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
CLASS XI.—VEHICLES, SADDLERY, HARNESS, &c.					Months	£	No.	£
Coach and Waggon Building ...	242	2,442	9	2,451	11·66	206,170	380	49,565
Cycles	41	588	16	604	11·78	58,770	167	18,504
Perambulators	3	67	4	71	12·00	5,161	3	405
Saddlery and Harness	65	745	50	795	11·72	66,559	25	7,448
Whips	3	22	...	22	12·00	1,297	187	92
Spokes, &c.	7	111	1	112	11·21	8,634	...	9,100
Total	361	3,975	80	4,055	11·81	346,961	762	85,114

SHIP AND BOAT BUILDING AND REPAIRING, &c.

In ship-building there are signs of greater development than hitherto, as, in addition to wooden vessels, it has been shown that large iron vessels can be constructed. At present, however, nearly all the ships built in the State are small wooden vessels for the river and island trades, or for passenger traffic on Sydney harbour. The ferry steamers which are built in the private docks of Sydney are among the finest in the world. In regard to boat-building, there is always considerable employment afforded in the Metropolitan district by the constant demand for yachts, motor-launches, and other pleasure craft. In the docking of ships, there are considerably less persons employed than formerly, although additional accommodation has been provided, and there are now four large graving docks at Sydney. Employment in this connection, however, is subject to great fluctuation, and at one period of the year there were 1,167 persons employed in dockyards alone. The following table shows the details of each industry for 1910 :—

Industries.	Number of Establishments.	Average number of Employees.			Average time worked per employee.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
CLASS XII.—SHIP AND BOAT BUILDING AND REPAIRING.					Months	£	No.	£
Docks and Slips	6	814	...	814	12 00	92,277	1,843	281,663
Ship and Boat Building and Repairing... ..	36	1,181	...	1,181	11·82	123,824	662	81,192
Total	42	1,995	...	1,995	11·89	222,101	2,505	362,855

There will be an increase in the ship-building trade during the next two years by reason of the construction of war vessels for the Australian Navy, some of which are to be built at the Fitzroy Dock, Sydney, the parts to be made locally.

FURNITURE, BEDDING, &c.

Industries connected with the manufacture of furniture, bedding, &c., have increased greatly in importance since 1900, when only 1,916 persons were employed. Of the 2,150 persons engaged in furniture and cabinet-

making during 1910, 852, or nearly 40 per cent. were Chinese. The particulars relating to each industry for the year 1910 are shown in the following table :—

Industries.	Number of Establishments.	Average number of Employees.			Average time worked per employee.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
CLASS XIII.—FURNITURE, BEDDING, &c.					Months	£	No.	£
Bedding, Flock, and Upholstery ...	23	351	98	449	11-80	40,572	155	5,863
Billiard Tables... ..	3	58	...	58	12-00	6,160	22	1,735
Chair-making	12	131	13	144	12-00	12,372	74	3,390
Furnishing Drapery, &c. ...	8	40	125	165	12-00	10,232	3	637
Furniture and Cabinet-making ...	107	2,139	11	2,150	11-71	198,257	540	28,629
Picture Frames	14	113	41	154	12-00	10,705	24	2,171
Window Blinds	9	75	23	98	11-73	6,667	10	950
Total	176	2,907	311	3,218	11-76	284,865	828	43,375

DRUGS AND CHEMICALS AND BY-PRODUCTS.

There are several large establishments for the manufacture of drugs and chemicals, and nearly one-half of the employees are females, who are principally engaged in packing or labelling the manufactured articles. The manufacture of by-products includes many articles such as baking powder, blue, blacking, &c., for domestic use, and the local article is gradually superseding imported goods. The following are the leading details in regard to each industry for the year 1910 :—

Industries.	Number of Establishments.	Average number of Employees.			Average time worked per employee.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
CLASS XIV.—DRUGS AND CHEMICALS.					Months	£	No.	£
Baking Powder and Self-raising Flour	17	92	82	174	11-83	13,750	90	8,350
Chemicals, Drugs, and Medicines... ..	31	394	348	742	11-82	61,040	309	129,478
Paints and Varnishes, &c.	28	289	137	426	11-78	28,931	408	29,621
Total	76	775	567	1,342	11-84	103,721	807	167,449

SURGICAL AND SCIENTIFIC APPLIANCES.

Most of these establishments are engaged in the manufacture of optical instruments, such as spectacles, &c. The total number of establishments was 11, in which 68 males and 19 females were engaged receiving £6,991 in wages. The average power of machinery in use was 14 horse-power, and the value of machinery and plant £3,951.

TIMEPIECES, JEWELLERY, AND PLATED WARE.

While there are numerous small establishments where timepieces are repaired, there are but few in which the articles are actually manufactured, and these are included with manufacturing jewellery :—

Industries.	Number of Establishments.	Average Number of Employees.			Average time worked per employee.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
CLASS XVI.—TIMEPIECES, JEWELLERY, AND PLATED WARE.					Months	£	No.	£
Electro-plating	11	141	4	145	11-83	12,101	98	7,256
Manufacturing Jewellery	35	456	57	513	11-93	46,668	69	13,042
Total... ..	46	597	61	658	11-92	58,769	167	20,298

In 1900 there were only 102 employees engaged in manufacturing jewellery; in consequence of the import duty under the Federal tariff a number of factories were established, the figures for 1910 being 35 establishments with 513 employees. The progress of this and other industries which supply luxuries for the people is a notable indication of the general prosperity of the State. Australian gem-stones are extensively used in the jewellery trade, and have commanded favourable attention in other countries.

HEAT, LIGHT, AND POWER.

Establishments connected with the supply of heat, light, and power show an increase each year, and the number of persons employed has been doubled within the last ten years:—

Industries.	Number of Establish- ments.	Average Number of Employees.			Average time worked per employee.	Amount of Wages paid.	Average Horse-power of Machinery in use.	Value of Machinery, Plant, &c.
		Males.	Females.	Total.				
CLASS XVII.—HEAT, LIGHT, AND POWER.					Months	£	No.	£
Coke-works	13	470	...	470	11·62	50,617	1,214	106,769
Electric Apparatus... ..	17	241	5	246	11·89	23,787	64	6,823
Electric Light and Power	99	784	...	784	11·74	107,021	49,848	1,176,920
Gas-works and Kerosene	44	916	...	916	12·00	135,597	1,348	748,473
Lamps and Fittings, &c.... ..	4	41	43	84	12·00	7,488	17	2,987
Hydraulic Power	1	16	...	16	12·00	2,350	500	26,666
Total... ..	178	2,468	48	2,516	11·84	326,860	52,991	2,068,638

The chief development in this class has occurred in connection with the supply of electric power and light, principally owing to the establishment of the metropolitan tramway and electric lighting systems.

ELECTRIC LIGHT AND POWER WORKS.

The value of the machinery used in furnishing electric power and light now exceeds the plant in gas-works by £428,447, and the engines have a capacity of 67,745 horse-power. The rapid progress of these establishments is shown by the following table:—

Year.	Electric Supply Works.	Employees.	Plant and Machinery.	
			Power (full capacity).	Value.
	No.	No.	H.-p.	£
1901	53	340	12,447	282,842
1902	58	413	21,175	469,985
1903	73	434	21,994	528,587
1904	65	464	24,492	624,686
1905	67	521	31,862	778,313
1906	66	565	38,327	975,723
1907	91	634	43,215	1,109,535
1908	97	748	46,200	1,012,231
1909	103	769	66,428	1,047,680
1910	99	784	67,745	1,176,920

GAS-WORKS.

Considerable progress has been made in the installation of electric lighting plants; but the use of gas is continually extending for lighting, power, and cooking. The following table shows particulars of the operations of gas-works during each of the last ten years. The value of plant does not include mains.

The rate charged to consumers varies in different country localities between 3s. per 1,000 feet in Bathurst and 15s. in Deniliquin. The price charged by the principal company in Sydney to private consumers is 3s. 9d. per 1,000 feet.

Year.	Gas-works.	Employees.	Gas made.	Plant and Machinery.	
				Power (full capacity).	Value.
	No.	No.	1,000 cubic feet.	H.-p.	£
1901	38	650	2,138,631	1,065	480,533
1902	42	648	2,304,814	1,011	536,338
1903	39	716	2,487,807	1,001	542,775
1904	40	692	2,598,650	1,091	601,976
1905	43	663	2,683,396	1,057	598,047
1906	46	719	2,790,494	1,361	647,339
1907	40	679	3,044,756	1,273	607,856
1908	39	689	3,307,083	1,368	610,914
1909	37	748	3,503,402	1,394	647,812
1910	44	916	3,861,771	1,799	748,473

During 1910 the quantity of coal used for gas was 301,182 tons, which, in addition to the gas, produced 159,928 tons of coke, 3,319,110 gallons of tar, and 1,980,000 gallons of ammoniacal liquor.

LEATHERWARE.

There are 330 males and 62 females employed in the manufacture of leatherware not elsewhere included, the majority of whom are engaged in making bags and portmanteaux. The employees in this class were busily engaged throughout the year, and received £26,857 as wages. The power of the machinery in average use was 141 horse-power, and the value of the machinery and plant was £11,474.

MINOR WARES.

Of the minor industries which cannot be classified under any of the preceding headings, the more important are broom and brush making, umbrella-making, and the manufacture of baskets, wicker-ware, and mats. The brooms are manufactured principally from millet grown in the State. An interesting feature of this industry is the employment which it affords to persons afflicted with blindness, and in 1910 there were 83 males and 7 females in the Sydney Industrial Blind Institution, who were employed in the manufacture of brushes, baskets, mats, &c. The particulars of the different industries for the year 1910 were as follows :—

Industries.	Number of Establish- ments.	Average number of Employees.			Average time worked per employee.	Amount of Wages paid.	Average Horse-power of Machinery used.	Value of Plant, Machinery, &c.
		Males.	Females.	Total.				
CLASS XIX.—MINOR WARES.					Months	£	No.	£
Baskets and Wicker-ware.								
Matting, &c.	9	114	2	116	12-00	6,288	...	510
Brooms and Brushware	19	201	20	221	11-94	14,423	50	5,351
Rubber Goods	6	149	26	175	12-00	13,670	352	25,495
Umbrellas	5	66	110	176	12-00	9,346	10	1,856
Other Industries	19	148	103	251	11-19	16,898	215	21,428
Total	58	678	261	939	11-78	60,823	627	54,640

WAGES.

The wages paid to employees in factories amounted in 1910 to £8,691,386, the male employees received £7,728,689, or £102 9s. 6d. per head, and the females, £962,697, or £39 11s. 6d. per employee.

It is impossible from the bare statements of wages supplied in these returns to give an approximation of the average rates of wages of the workers, as there are so many matters which have a direct bearing on the subject. The ages of the workers, the quantity of skilled and unskilled labour, the relative employment of males and females, the length of time worked are matters of vital importance in ascertaining the fair average wage paid, and details as to these subjects are not available.

Under the provisions of the Factories and Shops Act, however, information is collected regarding the wages paid in factories which come within its operations. The subject is too comprehensive to be dealt with in this volume; but complete information will be found in the "New South Wales Statistical Register," which is published each year.

POWER AND VALUE OF MACHINERY AND PLANT.

New South Wales has few running streams so situated as to be available for the purpose of driving machinery for manufacturing purposes, and nearly the whole of the power used is derived from steam; but in some instances, chiefly in the metropolis, gas is employed. Other power is used only to a limited extent, and although there are electric engines of 21,444 horse-power, they are used mainly for lighting or motive purposes, and, in addition, their power is usually dependent upon some other class of engine for its development. In the table given below the number of establishments using machinery is shown, with the aggregate horse-power. By the term "full capacity" is understood the power which can be generated by the boilers or machinery, while the "average used" represents the power generally used in carrying on the processes of manufacture:—

Class of Industry.	Value of Machinery, Implements, Tools, and Conveyance Plant.	Number of Establishments using Machinery.	Horse-power of Machinery in use.									
			Full Capacity.					Average used.				
			Steam.	Gas.	Electricity.	Water.	Oil.	Steam.	Gas.	Electricity.	Water.	Oil.
Treating Raw Materials, Product of Pastoral Pursuits, &c.	£ 354,562	272	4,991	937	496	9	46	2,946	668	367	9	34
Oils and Fats, Animal, Vegetable, &c.	174,001	28	685	11	206	...	...	442	8	506	...	...
Processes in Stone, Clay, Glass, &c.	695,082	121	8,376	1,546	1,751	...	47	6,584	1,111	1,039	...	30
Working in Wood	619,607	590	11,974	1,122	2,817	38	63	9,084	83	2,076	28	48
Metal Works, Machinery, &c.	2,670,504	407	17,591	2,448	8,102	...	209	14,051	1,773	6,195	...	154
Connected with Food and Drink, &c.	2,887,467	705	20,187	2,065	2,562	10	279	14,301	1,509	1,784	6	204
Clothing and Textile Fabrics, and Materials	442,845	293	1,429	1,518	865	...	10	896	1,187	738	...	9
Books, Paper, Printing, and Engraving	915,848	319	781	1,297	2,232	18	147	623	929	1,781	17	110
Musical Instruments	9,630	6	4	76	99	...	...	40	46	91	...	...
Arms and Explosives	1,280	3	17	...	...	...	...	13	...	...	...	...
Vehicles and Fittings, Saddlery and Harness, &c.	85,114	112	359	312	280	...	75	283	200	221	...	58
Ship and Boat Building, &c.	362,855	28	2,428	53	755	...	...	1,975	48	482	...	...
Furniture, Bedding, and Upholstery	43,375	102	250	353	430	...	5	209	286	328	...	5
Drugs, Chemicals, and By-products	167,449	53	479	316	289	1	...	355	231	220	1	...
Surgical and other Scientific Instruments	3,951	9	...	10	8	...	...	6	...	8	...	...
Jewellery, Timepieces, and Plated Ware	20,296	30	...	58	158	...	42	...	...	125	...	...
Heat, Light, and Power	2,038,638	165	70,182	1,544	226	266	52	51,583	1,021	106	136	42
Leatherware, N.E.I.	11,474	14	88	163	10	...	...	30	101	16	...	...
Minor Wares, N.E.I.	54,640	33	500	102	168	...	...	442	71	114	...	...
Total	11,578,620	3,290	140,310	13,985	21,444	362	933	103,897	10,128	15,991	197	694

The value of machinery and plant includes not only the machinery and engines of which the horse-power is shown, but also all other tools and implements used in the various processes of manufacture, as well as the conveyance plant. The most powerful machinery is used in the supply of heat, light, and power, in the manufacture of metals, and in the preparation of foods and drinks, while in the clothing industries machinery enters into use only to a minor degree.

The power of machinery in average use increased from 35,828 horse-power in 1900 to 130,862 horse-power in 1910, while the value of the machinery and plant in these years was £5,707,640 and £11,578,620 respectively; so that in this matter alone there is now an additional investment of capital to the extent of nearly £6,000,000.

CAPITAL INVESTED.

The capital invested in the manufacturing industry may be divided into two classes, fixed capital and active capital. Fixed capital represents the amount invested in lands, buildings, machinery and plant, tools and implements of trade, and good-will. Active capital includes the value of raw material and fuel on hand, stock in process of manufacture, finished products on hand, bills receivable, ledger accounts, cash in hand, and sundries not elsewhere included. The approximate amount of fixed capital can be readily ascertained, since the value of land and buildings occupied for manufacturing purposes, as well as the value of machinery and plant, implements and tools of trade, is obtained each year. Concerning the active capital no particulars are collected, and there are little or no data from which an estimate may be prepared.

The value of land and buildings in 1910 was £7,208,400, and of machinery, plant, &c., £11,578,700, so that the fixed capital amounted to £18,787,100.

The value of the land and buildings, machinery and plant, &c., in each industry is shown in the following table, which also contains some interesting information for the year 1910 regarding the value of materials used, and the value of goods manufactured or work done:—

Class of Industry.	Value of—						
	*Lands, Buildings, and Fixtures.	Machinery, implements, and Conveyance Plant.	Rent Paid.	Materials used.	Fuel consumed.	Wages and Salaries paid.	Goods Manu- factured or Work Done.
Treating Raw Materials, product of Pastoral pursuits, &c.	£ 257,597	£ 354,562	£ 7,551	£ †3,959,481	£ 45,955	£ 323,544	£ 4,688,061
Oils and Fats, Animal, Vege- table, &c.	162,456	174,001	1,516	625,432	13,839	60,409	836,027
Processes in Stone, Clay, Glass, &c.	467,617	695,082	6,339	226,084	147,768	453,537	1,186,274
Working in Wood	363,401	609,637	21,648	1,441,719	10,246	630,216	2,468,452
Metal Works, Machinery, &c.	1,596,033	2,670,504	29,498	6,066,309	453,422	2,378,610	10,751,443
Connected with Food, Drink, &c.	1,724,342	2,887,467	43,080	10,397,343	160,447	1,158,523	13,651,500
Clothing and Textile Fabrics and Materials	377,458	442,845	86,695	2,446,561	24,362	1,397,639	4,671,547
Books, Paper, Printing, and En- graving	380,340	915,848	44,432	712,785	23,549	807,754	2,076,433
Musical Instruments	22,416	9,630	1,913	71,443	502	40,337	139,505
Arms and Explosives	4,553	1,280	150	4,819	35	2,080	7,500
Vehicles and Fittings, Saddlery, Harness, &c.	167,111	85,114	20,438	420,608	9,287	346,991	968,173
Ship and Boat Building, &c.	564,707	362,855	2,831	123,400	10,487	222,101	402,363
Furniture, Bedding, and Uphol- stery	52,032	43,375	15,258	422,805	4,171	284,865	857,946
Drugs, Chemicals, and By-pro- ducts	87,726	167,449	6,544	442,755	15,540	103,721	833,161
Surgical and other Scientific Instruments ....	.....	3,951	1,584	6,918	164	6,991	24,444
Jewellery, Timepieces, and Plated Ware	1,500	20,298	5,822	87,294	1,409	58,769	193,310
Heat, Light, and Power	935,142	2,068,638	5,243	621,502	234,970	326,860	2,056,192
Leatherware, N.E.I.	19,423	11,474	1,088	106,250	615	26,857	161,518
Minor Wares, N.E.I.	24,738	54,640	4,641	174,923	2,415	61,582	289,953
Total	7,208,392	11,578,620	306,274	28,358,431	1,159,183	8,691,386	46,311,202

* If property of occupier. † Including value of wool treated.

Similar information regarding the factories of the Metropolitan district is given in the following table, which shows that the goods manufactured and work done in this district represents a very large proportion of the total output:—

Class of Industry.	Value of—						
	*Lands, Build- ings, and Fix- tures.	Machinery, Implements, and Conveyance Plant.	Rent Paid.	Materials used.	Fuel consumed.	Wages and Salaries paid.	Goods Manu- factured or Work Done.
Treating Raw Materials, product of Pastoral pursuits, &c.	£ 173,144	£ 220,270	£ 5,805	£ 2,428,845†	£ 31,029	£ 222,054	£ 2,845,950
Oils and Fats, Animal, Vege- table, &c.	132,315	112,969	1,197	483,373	8,089	43,799	695,244
Processes in Stone, Clay, Glass, &c.	278,200	294,786	4,155	152,406	78,873	276,752	697,384
Working in Wood	210,003	200,990	11,996	776,721	6,609	291,613	1,241,496
Metal Works, Machinery, &c.	1,123,690	980,953	26,752	1,998,687	55,730	1,347,722	3,952,740
Connected with Food, Drink, &c. Clothing and Textile Fabrics and Materials.	935,267	1,537,594	29,516	6,893,214	101,410	667,530	9,140,312
Books, Paper, Printing, and En- graving	310,273	333,710	73,130	2,231,658	21,004	1,233,753	4,187,000
Musical Instruments	310,744	715,419	36,434	663,813	19,163	683,826	1,826,069
Arms and Explosives	22,416	9,630	1,913	71,443	502	40,337	139,505
Vehicles and Fittings, Saddlery, Harness, &c.	1,753	880	50	4,572	28	1,771	7,050
Ship and Boat Building, &c.	79,681	37,077	12,095	237,768	3,257	181,313	518,912
Furniture, Bedding, and Uphol- stery	560,136	359,503	2,270	117,467	10,300	213,993	384,389
Drugs, Chemicals, and By-pro- ducts	43,572	40,501	14,839	408,951	4,046	273,957	826,228
Surgical and other Scientific Instruments	71,966	99,414	6,063	397,646	6,375	92,994	744,776
Jewellery, Timepieces, and Plated Ware ....	....	3,801	1,509	6,878	157	6,991	24,114
Heat, Light, and Power ....	....	19,568	5,399	86,477	1,387	56,575	186,366
Leatherware, N.E.I.	752,271	1,458,211	3,356	424,832	127,883	190,990	1,412,897
Minor Wares, N.E.I.	19,423	11,474	1,088	106,250	615	26,857	161,518
....	23,050	53,542	4,605	171,379	2,391	60,823	284,370
Total	5,047,904	6,540,292	242,172	17,662,330	478,548	5,913,650	29,276,340

* If property of occupier. † Including value of wool treated.

VALUE OF PRODUCTION FROM MANUFACTORIES.

In stating the value of production from manufactories, the returns from factories dealing with milk products are not taken into consideration, as they have already been included in the value of production from the dairying industry.

The value of goods manufactured or work done in 1910 (excluding the production of factories dealing with milk products), amounted to £46,311,202. Of this amount, £28,358,431 represent the value of materials and fuel used, leaving a balance of £16,793,588 the value added by the processes of treatment, which is the real value of production from manufactories. The sum last mentioned includes wages to the amount of £8,691,386, so that the actual amount which accrued to the proprietors was £8,102,202. It is interesting to note the proportions of the total output which the various items represent, and they are therefore shown in the following table:—

Item.	Amount.	Proportion of total.
	£	per cent.
Value of materials used	28,358,431	61·2
Value of fuel used	1,159,183	2·5
Wages paid	8,691,386	18·8
Balance which accrued to proprietors	8,102,202	17·5
Value of goods manufactured or work done	46,311,202	100·0

From this it will be seen that out of every hundred pounds worth of goods produced in factories, materials and fuel used in the manufacture thereof cost about £64, while the employees received £19 and the proprietors £17. There are, of course, numerous other sources of expense, and the balance shown as accruing to proprietors by no means represents the actual profits. A considerable margin must be allowed for such items as renewal of plant and machinery, &c., insurance, rent, advertising, rates, taxes other than duty or income tax, and, in addition, a sum to cover the interest on invested capital; the balance being the actual reward of the manufacturers' exertions.

Moreover, it will be seen from the following table that the proportions of the items vary considerably in the different classes of industries:—

Class of Industry.	Proportionate Value of Manufactured Goods represented by—			
	Materials.	Fuel.	Wages.	Balance Accruing to Proprietors.
	per cent.	per cent.	per cent.	per cent.
Treating Raw Materials, Pastoral Products ..	84·46	·98	6·90	7·66
Oils and Fats, &c.	70·59	1·56	6·82	21·03
Processes in Stone, Clay, Glass, &c.	19·06	12·46	38·23	30·25
Working in Wood	58·41	·41	25·55	15·63
Metal Works, Machinery, &c.	56·43	4·22	22·12	17·23
Connected with Food and Drink, &c.	76·16	1·17	8·49	14·18
Clothing and Textile Fabrics, &c.	52·37	·52	29·92	17·19
Books, Paper, Printing, and Engraving	34·33	1·13	38·90	25·64
Musical Instruments, &c.	51·21	·36	28·92	19·51
Arms and Explosives	64·25	·47	27·73	7·55
Vehicles, Saddlery, and Harness, &c.	43·44	·96	35·84	19·76
Ship and Boat Building, Repairing, &c.	30·67	2·60	55·20	11·53
Furniture, Bedding, Upholstery, &c.	49·29	·48	33·21	17·02
Drugs, Chemicals, and By-products	53·14	1·87	12·45	32·54
Surgical and other Scientific Instruments	28·30	·67	28·60	42·43
Timepieces, Jewellery, and Plated Ware	45·87	·74	30·88	22·51
Heat, Light, and Power	30·23	11·43	15·89	42·45
Leatherware, N.E.I.	65·78	·38	16·63	17·21
Minor Wares, N.E.I.	60·33	·93	21·24	17·60
	61·23	2·50	18·77	17·50

The table discloses some curious results, and shows that so far as two classes of industries were concerned—those engaged in treating raw pastoral products, and in the manufacture of arms and explosives—the profit gained by the proprietors on the year's operations must have been very small. As regards the first-mentioned industry, however, the receipts from the sale of by-products might reasonably be expected to increase the profits.

It is interesting to note the extent to which the value of materials is enhanced by the processes of treatment. For all industries, materials averaged 61 per cent. of the value of the output; but there was great diversity amongst the various classes, and the proportion ranged from 19 per cent. in those industries engaged in processes in stone, clay, glass, &c., to 84 per cent. in those treating raw pastoral products. These variations can be easily understood when the wide difference between the operations of the industries is considered, and the value of the plant employed taken into account. The extensive use of machinery, however, is not always the chief factor controlling the value added to materials, and the industries dealing with food, &c., and those engaged in ship-building, &c., may be cited as examples. In the former class, materials represent 76 per cent. and wages only 8 per cent. of the total value, while in the latter class, the wages amount to almost twice the value of the materials used and represent 55 per cent. of the total cost. It must be noted, however, that in ship and

boat-building and repairing a very large proportion of the work consists of repairs and renovations in which the cost of materials is much less than in making new goods.

The most striking example of the difference between hand and machine work is, however, afforded by the clothing industries. In establishments dealing with the slop-clothing the materials represented a much larger sum than the wages paid, the proportions to the value of the output being 53 per cent. and 32 per cent. respectively; but in tailoring establishments, where the sewing is principally done by hand, the amount of wages paid was equal to the value of material used, each representing about 38 per cent. of the value of the finished article. The general conclusion to be deduced from the figures would appear to be that the quantity of skilled labour required in the manufacture of an article is the greatest factor in adding to the value of raw material.

The following statement shows the progress of manufactories as regards value of production and wages paid in each year since 1901, except 1902, for which the information is not available:—

Year.	Value of—					Wages paid.
	Materials used.	Fuel consumed.	Goods manufactured, or work done.	Production, being value added to raw materials.	Production per head.	
	£	£	£	£	£ s. d.	£
1901	12,598,000	482,400	22,820,800	9,740,400	7 2 5	4,945,100
1903	15,121,900	*	24,721,700	9,599,800	6 15 9	4,839,600
1904	14,860,000	515,500	25,283,300	9,907,800	6 17 9	5,012,800
1905	16,662,800	556,700	27,850,200	10,630,700	7 4 10	5,191,300
1906	19,924,200	594,000	32,424,300	11,906,100	7 18 8	5,591,900
1907	23,263,800	826,500	37,571,100	13,480,800	8 15 4	6,650,700
1908	22,855,900	848,800	37,338,100	13,633,400	8 14 0	7,218,600
1909	24,783,700	922,100	40,241,600	14,535,800	9 2 8	7,665,100
1910	28,358,400	1,159,200	46,311,200	16,793,600	10 7 1	8,691,400

* Not collected.

As stated previously, from the value of production has been excluded the value added to articles already included in the dairying industry.

The production from manufactories in 1910 represented a value of £10 7s. 1d. per head of population, an amount £1 4s. 5d. higher than the return for the previous year, which was hitherto the highest on record.

NEW SOUTH WALES CHAMBER OF MANUFACTURES.

The New South Wales Chamber of Manufactures has been formed with the object of developing the manufactures, products, industries, and commerce of New South Wales, and generally to promote the manufacturing interests of the State; the great aim of the Chamber is to make Australia self-supporting. By mutual co-operation towards scientific efficiency, and the encouragement of industrial education, efforts are being made to bring Australian goods to the highest standard of quality.

In order to popularise goods of Australian manufacture, and to gain the favourable attention of the purchasing public, a week is set apart in each year, known as "Manufacturers' Week," during which exhibitions of Australian goods are held in the shops of the metropolitan area, and the various manufacturers open their works for inspection. The success of the movement is a favourable augury for the future of the manufacturing industry in Australia.

PASTORAL INDUSTRY.

THE live stock of New South Wales in 1788 consisted of 1 bull, 4 cows, 1 calf, 1 stallion, 3 mares, 3 foals, 29 sheep, 12 pigs, and a few goats. No systematic record of the arrival of live stock was kept in the early days of settlement ; but it appears that in the period between Governor Phillip's landing and the year 1800 there were some slight importations, chiefly of sheep from India. The numbers of each class of stock at various periods up to 1850, prior to the separation of Victoria, were as follow :—

Year.	Horses.	Cattle.	Sheep.	Swine.
1788	7	6	29	12
1792	11	23	105	43
1796	57	227	1,531	1,869
1800	203	1,044	6,124	4,017
1825	6,142	134,519	237,622	39,006
1842	56,585	897,219	4,804,946	46,086
1850	132,437	1,738,965	13,059,324	61,631

In 1851 the severance of Victoria from New South Wales reduced the number of stock considerably ; the separation of Queensland at the close of 1859 involved a further reduction, and at the end of the latter year the numbers of each kind of live stock within the existing boundaries of New South Wales were 251,497 horses, 2,408,586 cattle, 6,119,163 sheep, and 180,662 pigs. The following table shows the number of stock at the end of each decennial period from 1861 to 1901 inclusive, and for each of the last six years :—

Year.	Horses.	Cattle.	Sheep.	Swine.
1861	233,220	2,271,923	5,615,054	146,091
1871	304,100	2,014,888	16,278,697	213,193
1881	398,577	2,597,348	36,591,946	213,916
1891	469,647	2,128,838	61,831,416	253,189
1901	486,716	2,047,454	41,857,099	265,730
1905	506,884	2,337,973	39,506,764	310,702
1906	537,762	2,549,944	44,132,421	243,370
1907	578,326	2,751,193	44,461,839	216,145
1908	591,045	2,955,934	43,370,797	215,822
1909	604,784	3,027,727	46,202,578	237,849
1910	650,636	3,140,305	45,560,969	321,632

In addition to the live stock shown above, at the end of 1910, there were 59,781 goats, 1,013 camels, 51 donkeys, 132 mules, and 381 ostriches. Since 1891 the sheep have diminished in number to the extent of over 16 millions, but the other classes of stock show increases—horses 181,000, cattle 1,011,000, and swine 68,000. In order to indicate the districts in which the changes in the flocks and herds have occurred the following table has

been prepared, showing the number of live stock in each district at the end of various years since 1896. A striking feature of the table is the large increase both of dairy and ordinary cattle in the Coastal District :—

District.	1896.	1901.	1906.	1911.
SHEEP—				
Coastal District	964,759	1,097,471	1,316,580	1,462,201
Table-land	7,036,733	8,859,069	8,342,352	8,841,136
Western Slope	10,968,344	11,671,524	11,675,425	11,971,143
Western Plains and Riverina	18,541,961	14,578,523	15,998,996	16,582,939
Western Division	10,806,993	5,522,953	6,299,068	6,703,560
Unclassified .. .. .	.....	127,559	.....	.....
Total	48,318,790	41,857,099	44,132,421	46,560,969
ORDINARY CATTLE—				
Coastal District	612,797	667,282	836,055	1,038,677
Table-land	541,493	500,974	502,227	571,731
Western Slope	403,294	305,789	398,230	466,536
Western Plains and Riverina	199,817	114,327	224,677	328,079
Western Division	68,579	41,247	93,935	102,498
Total	1,825,980	1,629,619	2,055,124	2,507,521
DAIRY COWS IN MILK—				
Coastal District	238,530	284,099	355,238	480,181
Table-land	82,487	70,224	66,745	71,733
Western Slope	46,578	39,732	49,002	62,410
Western Plains and Riverina	26,372	19,790	21,178	25,489
Western Division	6,216	3,990	2,657	2,973
Total	400,183	417,835	494,820	632,786
HORSES—				
Coastal District	160,285	160,704	171,485	197,834
Table-land	115,314	112,294	110,077	120,395
Western Slope	108,493	110,345	130,947	172,086
Western Plains and Riverina	85,622	77,650	97,009	126,912
Western Division	40,922	25,223	28,244	33,409
Total	510,636	486,716	537,762	650,636

SHEEP.

The suitability of the land for grazing was undoubtedly the means of inducing the early colonists to enter upon pastoral pursuits, and the relative ease with which operations could be conducted, in comparison with the difficulties attendant upon other primary industries, confirmed their choice.

In the year 1795 Captain John Macarthur, one of the first promoters of sheep-breeding in New South Wales, had accumulated a flock of a thousand sheep ; but, not satisfied with the natural increase of his flocks, he sought also to improve the quality of their fleeces. By good fortune, in 1797, Captain Waterhouse arrived from the Cape of Good Hope with a number of very fine Spanish-bred sheep, which he sold to various stockowners. With the advantage of this superior stock, Macarthur gradually improved his strain, and in a few years obtained fleeces of very fine texture.

Prior to the nineteenth century the production of the finest wool had been fostered chiefly in Spain, so that woollen manufactures were necessarily somewhat restricted, and it was at this favourable period that Macarthur arrived in England with specimens of the wool obtained from his finest sheep, proving conclusively the capabilities of Australia as a wool-producing country. In this way he established a small trade, which, as Australian wool rose in public estimation, gradually increased until it has reached its present enormous dimensions ; so that, although not the first to introduce merino sheep into Australia, there is no doubt that to him is due the credit of having been the first to prove that the production of fine wool could be made a profitable industry in this country.

As might have been anticipated, natural conditions in Australia have somewhat varied the character of the Spanish fleece. The wool has become softer and more elastic, and while diminishing in density it has gained in length, so that the weight of the fleece has increased. The quality of the wool, on the whole, has improved under the influence of the climate, and Australian wool is now probably the best in the world.

The following table shows the number of sheep at the close of various years, and illustrates the progress of sheep-breeding in New South Wales:—

Year.	Sheep.	Year.	Sheep.	Year.	Sheep.
1861	5,615,054	1891	61,831,416	1905	39,506,764
1866	11,562,155	1896	48,318,790	1906	44,132,421
1871	16,278,697	1901	41,857,099	1907	44,461,839
1876	25,269,755	1902	26,649,424	1908	43,370,797
1881	36,591,946	1903	28,656,501	1909	46,202,578
1886	39,169,304	1904	34,526,894	1910	45,560,969

Divided into periods, the rates of increase are—

1861-71	annual increase	11·2	per cent.
1871-81	„	8·4	„
1881-91	„	5·4	„
1891-1901	„	decrease 4·0	„
1901-1910	„	increase 0·9	„

Considering the unimproved condition of the pasturage over a great portion of its area, it was apparent in 1891 that the State was overstocked, and graziers restricted the natural increase of their flocks by breeding only from the better-class ewes. In addition, the following season proved unfavourable, so that during the year there was a large decrease in the number of sheep. The adverse season of 1892 was, unfortunately, the forerunner of many others, so that with the exception of 1900, the whole of the years up to 1902 were distinctly unfavourable to the pastoral industry. The climax was reached in 1902, which was particularly disastrous, as the number of sheep fell from 41,857,099 at the beginning of the year to 26,649,424 at its close, when the total flocks were over 35 millions less than in 1891.

From 1902 there was a steady increase in sheep until 1909, when the number had risen to 46,202,578, the highest recorded since 1898. During 1910 there was a decline of 641,609, the principal causes being the heavy losses in lambs in some districts, the subdivisions of large holdings, and in other cases change from pastoral industry to dairying.

The decrease in the total was accompanied by great changes in the sizes of individual flocks, and these changes may be traced in the following table, which gives an approximate classification of the flocks, for various years from 1891 to 1910. In the former year there were only 13,187 holdings, but in 1910 the number had increased to 25,497, although the sheep had decreased by over 16 millions. It is significant that while in 1891 there were 73 holdings which each carried over 100,000 sheep, the number of such in 1901 was 12, and in 1910 only 6. The sheep in flocks of over 20,000 comprised 62 per cent. of the total in 1891, but only 30 per cent. in 1910. The greatest change has occurred since 1894, when a very large number of sheep perished, and pastoralists realised that the best method of meeting droughty seasons

lay in the subdivision of their large flocks. Since 1904 the application of the closer settlement policy to large estates has caused a further subdivision of the flocks.

Size of Flocks.	Number of Flocks.				Number of Sheep.			
	1891.	1901.	1906.	1910.	1891.	1901.	1906.	1910.
1—1,000 ..	7,606	11,800	13,894	17,572	2,794,751	3,797,114	4,397,818	5,269,230
1,001—2,000 ..	1,854	2,351	2,925	3,497	2,979,168	3,660,849	4,327,447	5,199,394
2,001—5,000 ..	1,696	1,722	2,127	2,688	5,493,942	5,519,008	6,715,317	8,412,742
5,001—10,000 ..	686	729	757	859	4,943,221	5,210,117	5,287,191	6,051,402
10,001—20,000 ..	495	465	484	513	7,056,580	6,666,429	6,966,647	7,192,914
20,001—50,000 ..	491	344	357	301	15,553,774	10,552,373	10,637,410	8,833,607
50,001—100,000 ..	186	76	69	61	12,617,206	4,835,647	4,409,600	3,929,666
100,001 and over ..	73	12	11	6	10,392,774	1,688,103	1,390,991	762,044
	13,187	17,499	20,624	25,497	61,831,416	41,857,099*	44,132,421	45,560,969

* Includes 127,559 sheep in unclassified flocks.

After allowing for the causes which naturally impede the increase, such as the demands of the meat supply, the requirements of the neighbouring States, and the losses occurring from causes other than drought, it is found that the rate of annual increase has been as high as 20 per cent., so that it is possible for the flocks of New South Wales to double themselves within four years, and actual experience shows that this rate of increase occurred in 1904 and in several of the earlier years. During the period of five years from 1861 to 1866 there was an increase of 100 per cent. ; and the flocks of the State were again doubled in the eight years from 1866 to 1874, and in the thirteen years from 1874 to 1887.

Until recent years the demand for sheep for local consumption was so small compared with the supply that it did not appreciably affect the increase of the flocks of the State. This, however, is not now the case ; the annual demand for food consumption within the State is about 8 per cent. of the number of sheep depastured—equal to about five-eighths of the cast. The “cast” implies the number of sheep which, from breeding or wool-growing considerations, it is more profitable to kill than to feed. Expressed as a percentage of the whole of the sheep depastured, the “cast” is a variable quantity, which, however, may be taken approximately as 11½ per cent. The number required for export in a frozen or preserved state, and for tallow, brings up the total killed per annum to nearly 16 per cent. of the entire flocks.

The following table gives the number of sheep in each State of Australia at the end of 1910, together with the proportion of the total owned in each :—

State.	Sheep.	Proportion owned in each State.
	No.	per cent.
New South Wales	45,560,969	49·50
Victoria	12,882,665	14·00
Queensland	20,331,838	22·09
South Australia	6,267,477	6·81
Northern Territory	57,240	·06
Western Australia... ..	5,158,516	5·60
Tasmania	1,788,310	1·94
Commonwealth of Australia..	92,047,015	100·00

The introduction of sheep and cattle into New South Wales was forbidden for many years, lest the flocks and herds might be contaminated by scab and various diseases prevalent in other countries ; but these restrictions were removed

at the beginning of the year 1888, and pure-bred sheep are now imported from the United Kingdom, the United States, and Germany. So far, the principal breed imported has been the merino; but Lincoln, South Downs, Vermont, Shropshire, and other well-known breeds have been introduced. The sheep imported into New South Wales during 1910 for breeding purposes, from the other Australian States and New Zealand, numbered 14,873, and from England, 53.

The breeds of sheep in New South Wales are the Merino, Lincoln, Leicester Downs, and Romney Marsh, and crosses of the long-woolled breeds, principally with the merino. In addition, the Suffolk Downs sheep, which appear to be pre-eminently adapted for farming purposes, and for the production of a weighty lamb for the export trade, were introduced into the New England district during 1904. At the close of 1910, the respective numbers of merino and cross-breeds were as shown below, the figures are exclusive of 2,054,488 sheep, particulars of which are not available:—

Class of Sheep.	Rams.	Ewes.	Wethers.	Lambs.	Total.
Merino	497,641	18,777,022	10,305,749	7,915,360	37,495,772
Other breeds— Coarse wool	123,856	2,661,719	1,378,820	1,846,314	6,010,709
Total	621,497	21,438,741	11,684,569	9,761,674	43,506,481

Of the coarse-woolled sheep the largest proportion are Lincolns and their crosses with merino. The proportion of English and cross-bred sheep has increased considerably. Twenty-seven years ago the proportion of coarse-woolled and cross-breeds was only $3\frac{1}{2}$ per cent., and for fully ten years after it stood at about $2\frac{1}{2}$ per cent. In 1893 the proportion rose to 4·3 per cent., and with the development of the meat export trade it has now advanced to nearly 14 per cent.

The climate of New South Wales is so mild that there is no necessity for housing stock during the winter months, except on the highlands. The sheep are kept either in paddocks or under the care of shepherds, though on some stations they are both shepherded and paddocked.

The advantages of the paddock system are numerous, and are now fully recognised by stockowners. Sheep kept in paddocks thrive well, and are less liable to foot-rot and other diseases; they grow a better fleece and the wool is sounder and cleaner; the sheep increase in size and live longer; in addition, the expenses of the station are less than if worked under any other system.

The increased attention paid to cross-breeding to supply the demands of the frozen-mutton trade, and the large increase in small farmers who combine grazing with agriculture, have emphasised the necessity of conducting experimental breeding on a scientific basis, and of providing instructions for sheep-farmers. To meet this necessity a Sheep and Wool Expert was appointed, in 1909, to the Department of Agriculture to organise the experimental work conducted at State Experiment Farms, and to give lectures and demonstrations in country centres.

It may be mentioned that during 1911 the seventeenth annual exhibition of sheep, under the auspices of the New South Wales Sheepbreeders' Association, was held at Sydney.

Amongst a large number of exhibits were cross-bred sheep from the Bathurst and Wagga Experiment Farms of the Government. Students of the Technical College sheep and wool classes assisted at the judging of the sheep, and a students' sheep-judging competition took place.

During the year 1910, 12,055,643 lambs were dropped, and 10,768,669 marked. The following return of sheep in the State has been prepared for the years 1909 and 1910 :—

	1909.		1910.	
	No.	No.	No.	No.
Sheep on 1st January ... ..	...	43,370,797	...	46,202,578
Lambs marked during year ... ..	...	11,054,605	...	10,768,669
Sheep imported during year ... ..	...	1,592,527	...	*1,093,756
Slaughtered for food for local consumption—		56,017,929		58,065,003
On stations and farms	1,289,452	...	1,301,448	
Otherwise	2,510,512	...	2,593,141	
For meat-preserving	964,536	...	1,093,577	
For freezing for export	1,589,138	...	2,218,813	
For boiling-down	76,843	...	274,055	
Total slaughtered during year	6,430,486	...	7,481,034	
Died and missing sheep	1,519,338	...	*4,106,491	
Exported during year	1,865,527	...	*916,509	
Total deduction ... ..	...	9,815,351	...	12,504,034
Sheep on 31st December ... ..	...	46,202,578	...	45,560,969
Increase or decrease on previous year (Increase)		2,831,781	(Decrease)	641,609

* This figure is approximate only, as particulars of interstate trade (borderwise) were not collected subsequent to 13th September, 1910.

WOOL.

The wool-clip is the most important item of production of New South Wales, and the prosperity of the State very largely depends upon the wool market. The following table shows the production in quinquennial periods since 1876, distinguishing the exports and local consumption. The exports comprise both washed and greasy wool, and, as regards quantity, the actual weight of exports would not show the production clearly. As the proportion of washed and greasy wool vary each year, the washed wool should, therefore, be stated, as in grease. This has been done for the purposes of the following table, and, adding to the exports the quantity of wool used locally in woollen mills, the total production, stated as in the grease, was as follows :—

Period.	New South Wales Wool.—Quantity.			Value.		
	Exported.	Used locally.	Total production.	Exported.	Used locally.	Total.
	lb.	lb.	lb.	£	£	£
1876-1880	713,518,500	4,878,500	718,397,000	31,076,359	222,248	31,298,598
1881-1885	939,605,700	4,208,300	943,814,000	40,381,381	181,711	40,563,092
1886-1890	1,290,919,900	3,861,100	1,294,781,000	44,641,559	130,821	44,772,380
1891-1895	1,808,007,600	5,622,400	1,813,630,000	48,893,015	131,565	49,024,580
1896-1900	1,401,170,000	7,070,000	1,408,240,000	42,752,417	201,276	42,953,693
1901-1905	1,295,317,300	5,466,700	1,300,784,000	46,495,828	223,303	46,719,131
1906	324,605,600	835,400	325,441,000	14,072,400	26,600	14,099,000
1907	366,501,900	944,100	367,446,000	17,158,500	26,500	17,185,000
1908	337,128,954	1,000,046	338,129,000	12,800,300	29,300	12,829,600
1909	369,734,800	1,073,200	370,808,000	13,755,100	33,300	13,788,400
1910	412,085,000	3,253,000	415,338,000	15,577,000	131,000	15,708,000

The values given in this table represent the export prices free on board, Sydney, and, consequently, differ from those on a later page, which show the values at the place of production. As particulars of the interstate trade were not collected subsequent to the 13th September, 1910, the figures for last year are approximate.

No distinction was made prior to 1876 between washed and greasy wool, so that any attempt to estimate the production is surrounded with difficulty. From the information available, however, it would appear that the production in 1861 was 19,254,800 lb., and in 1871 the weight in grease was 74,401,300 lb. An estimate of the production for the intervening years is rendered impossible because in several instances the greater portion of the wool clip was held over for a considerable period, awaiting an opportunity for shipment.

The above figures at once show how greatly the prosperity of the State is affected by fluctuations in the market value of its staple export, for, taking the average annual export during the past five years at 362,000,000 lb., a rise of 1d. per lb. in the market price means an addition of £1,508,000 to the wealth of the people.

As the season for exporting wool does not fall wholly within the calendar year, the exports for any year consist partly of that season's clip and partly of the previous clip. The following table shows the total number of sheep shorn during each year since 1891 :—

Year.	Sheep and Lambs shorn.	Year.	Sheep and Lambs shorn.	Year.	Sheep and Lambs shorn.
1891	57,702,702	1898	41,220,440	1905	37,145,686
1892	55,602,188	1899	34,569,924	1906	41,704,814
1893	54,090,109	1900	38,400,241	1907	40,338,700
1894	54,234,997	1901	40,417,263	1908	41,912,546
1895	45,695,657	1902	27,639,804	1909	43,356,535
1896	45,997,583	1903	26,994,870	1910	43,179,065
1897	42,429,750	1904	31,804,772		

The following additional information regarding the wool clip for the year 1910 is of interest. Of the total, 43,179,065 sheep and lambs shorn in the grease, there were 35,641,740 sheep, the average weight of clip per sheep being 7 lb. 7½ oz., equal to 266,422,349 lb., and the lambs shorn numbered 7,537,325, the average weight of clip per lamb being 2 lb. 9½ oz., equal to 19,407,781 lb. The total wool clip for 1910 was, therefore, 285,830,130 lb.

Of late years considerable attention has been given to the question of breeding, and the result is seen in the steady improvement in the weight of fleeces. In spite of the bad seasons experienced, the wool clips have been very good, and notwithstanding the greatly diminished flocks, the production of wool has not by any means decreased proportionately. The improvement in the weight of fleece will be apparent from a consideration of the following table :—

Period.	Average number of Sheep depastured annually.	Average annual production of Wool.	Average yield of Wool per Sheep.
	No.	lb.	lb.
1881-85	36,020,700	188,762,800	5.24
1886-90	47,746,200	258,956,200	5.42
1891-95	56,297,400	362,726,000	6.44
1896-1900	41,949,300	281,648,000	6.71
1901-05	34,239,300	260,517,000	7.61
1906-10	44,745,700	363,432,000	8.12

From these figures it appears that the average weight during the last five years has been over 8 lb. A striking proof of the increased weight of the fleece is afforded by a comparison of the figures relating to the periods ending with 1890 and 1910. In the earlier period the sheep numbered 3,000,000 more, yet the average annual production of wool was 104,500,000 lb. less than that of the later term.

WOOL SALES.

Formerly almost all the wool was shipped on the grower's account and sold in London, but of late years over 85 per cent. has been sold in the Sydney market, as purchasers have realised the advantages of buying on the spot. The attached table exhibits the growing tendency to operate in Sydney :—

Seasons.	Total deep-sea exports (from Sydney and Newcastle).	Sydney Wool Sales.		
		Offered.	Sold at auction and privately.	Proportion of deep-sea exports sold in Sydney.
	bales.	bales.	bales.	per cent.
1887-88--1889-90	1,318,351	764,520	580,000	43·99
1890-91--1892-93	1,823,085	1,093,766	886,541	48·63
1893-94--1895-96	2,158,220	1,382,517	1,241,858	57·54
1896-97--1898-99	1,971,513	1,318,579	1,294,373	65·65
1899-1900--1901-02	1,766,922	1,330,747	1,309,915	74·14
1902-03--1904-05	1,549,598	1,232,819	1,252,817	80·85
1905-06--1907-08	2,356,811	1,969,061	1,939,916	82·31
1908-09--1910-11	2,770,656	2,265,155	2,364,555	85·34

Of the wool sold in Sydney during the last season, approximately 610,323 bales were purchased for the Continent of Europe, 115,315 bales for the English trade and for London on speculative account, 6,982 bales for America, 14,139 bales for Japan, China, and India, and 37,500 bales by local scourers. The average prices per bale realised in Sydney and in London during the last nine years are shown in the following table :—

Year.	Average Prices per Bale realised.					
	In Sydney.			In London.		
	£	s.	d.	£	s.	d.
1902-3	12	8	8	13	2	6
1903-4	12	17	1	13	10	0
1904-5	12	17	1	14	10	0
1905-6	13	19	6	15	15	0
1906-7	14	3	0	17	0	0
1907-8	13	9	0	16	10	0
1908-9	11	15	10	13	5	0
1909-10	13	14	4	15	0	0
1910-11	12	10	11	16	5	0

In comparing the prices of the Sydney and London markets, it should be noted that in the former the season ends with June and in the latter with December, also that a much larger proportion of the lower qualities of wool, such as pieces, bellies, locks, &c., are sold in Sydney. As freight and other charges amount to 25s. or 30s. per bale, it is evident that the Sydney market is the more favourable to producers.

The prices realised for the different descriptions of wool at the Sydney wool sales during the last two seasons are given below :—

Description.	Superior.		Good.		Medium.		Inferior.	
	1909-10.	1910-11.	1909-10.	1910-11.	1909-10.	1910-11.	1909-10.	1910-11.
	per lb.	per lb.	per lb.	per lb.	per lb.	per lb.	per lb.	per lb.
Greasy—	d.	d.	d.	d.	d.	d.	d.	d.
Fleece ..	13 to 18	12½ to 16½	10½ to 12½	9½ to 12½	8½ to 10	8½ to 9½	6½ to 8½	6½ to 8
Pieces ..	10½ .. 12	10 .. 12	9 .. 10½	8½ .. 9½	7½ .. 8½	7 .. 8	6½ .. 7½	5½ .. 6½
Bellies ..	8 .. 10	7½ .. 10	6½ .. 7½	6 .. 7	5½ .. 6½	4½ .. 5½	4 .. 5	3½ .. 4½
Lambs ..	12 .. 16½	11½ .. 13½	9 .. 11½	8½ .. 11½	7½ .. 8½	7 .. 8½	5 .. 7½	4½ .. 6½
Crossbred—								
Fine ..	12 .. 18½	11½ .. 14½	10½ .. 11½	9½ .. 11	9 .. 10½	8½ .. 9½	7½ .. 8½	7½ .. 8½
Coarse ..	8½ .. 10	8 .. 9½	7½ .. 8½	6½ .. 7½	6 .. 7	5½ .. 6½	4½ .. 5½	4 .. 5½
Scoured—								
Fleece ..	21½ .. 25½	20½ .. 23½	19½ .. 21½	18½ .. 20½	17½ .. 19½	16½ .. 18½	15 .. 17	14 .. 16½
Pieces ..	18½ .. 22½	18 .. 20	16½ .. 18½	16 .. 17½	14½ .. 16½	14 .. 15½	13 .. 14½	12½ .. 14
Bellies ..	16 .. 21½	15 .. 18	13½ .. 15½	13 .. 14½	12 .. 13½	11½ .. 13	10½ .. 11½	10 .. 11
Locks ..	11½ .. 18½	11 .. 14	10½ .. 11½	9½ .. 10½	8½ .. 10	8 .. 9½	7½ .. 9	7 .. 8

In order to illustrate the fluctuations in value, the following table has been compiled, which gives a fairly correct idea of the average value realised for greasy wool in the London market at each of the principal sales during the last ten years :—

Year.	1st Series.	2nd Series.	3rd Series.	4th Series.	5th Series.	6th Series.
	per lb.	per lb.	per lb.	per lb.	per lb.	per lb.
	d.	d.	d.	d.	d.	d.
1902	10½	10½	11½	11½	12	12½
1903	12½	12	11½	11	11	10½
1904	11	10	10½	11	11½	12
1905	12	11¾	12½	12½	12½	12½
1906	12	12¼	12½	12¼	12	12¼
1907	12¼	12½	12½	12¾	12¾	11¾
1908	11¾	10	9¾	10¼	10¾	11¼
1909	11½	11¾	12	12	12½	12¼
1910	12¼	12½	12¾	12¼	12½	12½
1911	12	12½	12	12	11½	11½

During the period covered by the table, Sydney-shipped greasy wool realised 12¾d. to 9¾d. The maximum prices were realised during 1907, when the sales twice closed at 12¾d. per lb., and also in 1910. The 1902 sales opened at 10½d., and the prices rose gradually to 12½d. at the close. In 1903 there was a gradual fall to 10½d., but at the last sales in 1904 prices again reached 12d. This value was more than maintained during the next three years. During 1908 the value fell to 9¾d., but rose to 11¼d. at the close of the year. In 1909 prices opened at 11½d. and gradually rose to 12¾d. in 1910, finishing at the last sales at 12½d.

CATTLE.

Though still a very important industry, cattle-rearing does not now occupy so prominent a position as formerly. The number of cattle returned at the close of various years since 1861, as per the subjoined table, shows that there was a great decline in the total from 1876 to 1886, that the number steadily increased from 1886 to 1896, when it stood at 2,226,163, and then owing to unfavourable seasons the numbers decreased until in 1902 the total was only 1,741,226. Since 1902 the number has steadily increased, and in 1910 reached a total of 3,140,305, the highest yet recorded.

Year.	Cattle.	Year.	Cattle.	Year.	Cattle.
1861	2,271,923	1891	2,128,838	1905	2,337,973
1866	1,771,809	1896	2,226,163	1906	2,549,944
1871	2,014,888	1901	2,047,454	1907	2,751,193
1876	3,131,013	1902	1,741,226	1908	2,955,934
1881	2,597,348	1903	1,880,578	1909	3,027,727
1886	1,367,844	1904	2,149,129	1910	3,140,305

The principal breeds of cattle now in the State are the Durham or Shorthorns, Hereford, Devon, Black-polled, Ayrshire, Alderney, Jersey, and crosses from these various breeds. At the close of the year 1910 the numbers of each breed, as far as could be ascertained, were :—

Breed of Cattle.	Pure and Stud.	Ordinary.	Total.
	No.	No.	No.
Shorthorn	81,664	641,840	723,504
Hereford	31,662	156,802	188,464
Devon	13,225	36,046	49,271
Black-polled	1,834	21,025	22,859
Red-polled	493	2,910	3,403
Ayrshire	10,463	60,821	71,284
Alderney	1,519	4,334	5,853
Holstein	749	4,168	4,917
Jersey	15,225	63,551	78,776
Guernsey	649	7,104	7,753
Kerry	10	...	10
Highland	40	120	160
Red Lincoln	9	...	9
Total	157,542	998,721	1,156,263
Crosses (first crosses)—			
Shorthorn—Hereford ... ..	.....	300,992	300,992
" —Devon ... ..	.....	145,401	145,401
Hereford — " ... ..	.....	57,280	57,280
Ayrshire—Shorthorn ... ..	.....	221,530	221,530
Alderney— " ... ..	.....	1,050	1,050
Black-polled— " ... ..	.....	31,871	31,871
Red-polled— " ... ..	.....	636	636
Jersey— " ... ..	.....	72,913	72,913
Jersey—Ayrshire .. ..	.....	915	915
Black-polled and Hereford ... ..	.....	1,128	1,128
Unknown ... ..	.....	780,084	780,084
Total ... ..	.....	1,613,800	1,613,800
Total—All Breeds	157,542	2,612,521	2,770,063

There were in addition, 370,242 cattle not classified, which were for the most part in the towns.

There has been an appreciable increase in the number of milking cattle, many of the farmers in the coastal districts having turned their attention to dairying, with very satisfactory results. The number of milch cows at the close of the year 1910 was 632,786.

The breed of cattle throughout the State is steadily improving—a result due to the introduction of good stud stock ; to greater attention and care exercised in selection and breeding, more particularly for dairying purposes ; and to culling and keeping in paddocks. In order to encourage and assist dairy farmers in improving breeds the Government have imported some high-class stud bulls from England ; there are now twenty-nine of these bulls.

Importations from Europe and America were discontinued for many years owing to the natural dread of the stockowners lest their herds should contract diseases which have devastated the cattle of other countries. The prohibition was removed in 1888, and cattle are now admitted after quarantine ; the number so admitted in 1910 was fifty-three—four bulls and forty-nine cows, and in addition, a number of stud cattle were imported from the other States, principally for dairying purposes.

The exports of New South Wales cattle to countries overseas during 1910 numbered 788. Of these 703, valued at £5,847, were ordinary cattle, and eighty-five, valued at £2,134, were cattle for stud purposes.

The breeding cows in the State in 1910 numbered 809,130. Australian cattle, probably because they live in a more natural state, are remarkably free from milk-fever and other complaints attendant on calving.

HORSES.

At an early period the stock of the country was enriched by the importation of some excellent thoroughbred Arabians from India, so that Australian horses have acquired a high reputation. The number in the State steadily increased from 1883 to 1894, when it stood at 518,181; but, owing to the drought, the total in 1895 fell to 499,943. In 1896 there was an increase to 510,636, attributed to increased settlement, more breeding, and fewer sales for export. By successive decrements the number of horses had fallen in 1902 to 450,125; since that year there has been a substantial increase, and the number at the end of 1910 reached 650,636. There was a great advance in horse breeding in 1910 in consequence of the increased demand owing to additional settlement and the prosperous seasons, and to the defence requirements. With reference to the training of military horses it may be mentioned that the Commonwealth authorities have formed a horse recruit camp at Liverpool in this State, where at present 400 horses are being prepared for military purposes.

The following table shows the number of horses in New South Wales at the end of various years since 1861:—

Year.	Horses.	Year.	Horses.	Year.	Horses.
1861	233,220	1891	469,647	1905	506,884
1866	274,437	1896	510,636	1906	537,762
1871	304,100	1901	486,716	1907	578,326
1876	366,703	1902	450,125	1908	591,045
1881	398,577	1903	453,014	1909	604,784
1886	361,663	1904	482,663	1910	650,636

For purposes of classification the horses have been divided into draught, light-harness, and saddle horses, and the number of each particular kind, so far as could be ascertained from returns collected by the Stock Department, was as follows:—

Class.	Thoroughbred.	Ordinary.	Total.
Draught	24,586	180,500	205,086
Light-harness	16,818	128,008	144,826
Saddle	29,275	163,500	192,775
Total... ..	70,679	472,008	542,687

Returns relating to the remaining 107,949 animals were not received.

New South Wales is specially suitable for the breeding of saddle and light-harness horses, and it is doubtful whether in these particular classes the Australian horses are anywhere surpassed. On many of the large holdings thoroughbred sires are kept, and the progeny combine speed with great powers of endurance. Fed only on the ordinary herbage, these animals constantly perform long journeys across difficult country, and become hardy and sure-footed to a high degree. It is the possession of these qualities which gives them great value as army remounts.

The approximate number of animals fit for market is as follows:—Draught, 30,472; light-harness, 25,443; saddle, 32,201; total, 88,116.

Of these it is estimated that about 23,965 are suitable for the Indian and other markets.

EXPORT OF HORSES.

There is a considerable export trade annually to countries outside Australia, the number of New South Wales horses in 1910 being 1,926, valued at £57,116. The following table shows the number and value of horses bred in New South Wales exported to countries outside Australia in the years 1900, 1905, and 1910 :—

Countries.	Number.			Value.		
	1900.	1905.	1910	1900.	1905.	1910.
Burmah ... ..	.....	95	85	.....	£ 2,625	£ 2,743
Fiji	48	446	190	1,220	11,189	4,566
Hong Kong	5	404	...	115	15,021	.....
India	1,688	1,922	925	18,521	42,774	20,522
New Zealand	189	118	106	3,276	4,188	6,460
South Africa	7,714	8	1	124,485	1,780	25
Straits Settlements	295	121	42	7,440	3,110	6,645
China	1,489	85	1	41,600	2,041	60
Japan ... ..	.....	1,631	31	.....	26,495	1,620
Java	36	265	98	720	3,345	2,747
Philippine Islands	35	190	397	1,060	3,085	9,985
Other Countries	73	121	50	4,848	3,311	1,743
Total	11,572	5,406	1,926	203,285	118,964	57,116

For many years India has offered the best market for horses. The demand for horses in that country is considerable, and Australia is a natural market from which supplies are derived. The trade with the Philippine Islands has increased, and since 1904 some large consignments have been sent to Japan, but the trade shows great fluctuations.

The large number exported in 1900 was due to the despatch of mounted troops to the South African war; but, apart from this, there has been a considerable decrease in the number exported, mainly on account of the greater local demand.

VETERINARY EXAMINATION.

With a view to improving the breed of horses, the principal Agricultural Societies recently decided that all stallions entered as such for prizes at agricultural shows, shall be subject to veterinary examination with a view to detecting hereditary unsoundness. But it has been recognised that in order to effect a general improvement compulsory regulation by the State authorities is necessary. As a step towards this end, a system of examination and certification of stallions by Government veterinary officers was initiated in 1909; it applies only to horses voluntarily submitted by owners for inspection. The horses examined up to 31st March, 1910, were chiefly those submitted at Agricultural and Pastoral Shows; but arrangements were subsequently made to hold parades at numerous centres throughout the State.

The veterinary officers attended parades at 139 centres during the seven months, June and December, 1910, and examined 1,955 horses. Of this number certification was refused in respect of 585, including 230 rejected for deficiency in type, breeding, and conformation.

As the scheme has been in operation for a very short period it is not possible to foreshadow its ultimate effect on the industry; but it has already brought about some desirable results, as, for instance, depreciation in selling value of uncertificated stallions and corresponding increase to the value of the certificated; greater care in the selection of animals for importation;

and the education of owners in a practical manner regarding various forms of unsoundness. By means of the examinations also the veterinary officers have been able to collect accurate information which will be useful as a basis of future measures in connection with horse-breeding. A number of people vitally interested in this industry are in favour of an Act of Parliament, insisting on the examination of all stallions used for breeding purposes, and forbidding the use of any animals which have not obtained the necessary certificate.

Recognising the importance of improving the breed, and of further developing the industry, the Government has lately established a Chair of Veterinary Science at the Sydney University.

LIVE STOCK IN PRINCIPAL COUNTRIES.

A comparison of the numbers of horses, cattle, sheep and swine in New South Wales and other countries is afforded by the subjoined table, the figures being the latest available:—

Country.	Horses.	Cattle.	Sheep.	Swine.
Australia—				
New South Wales	650,636	3,140,307	45,560,969	321,632
Victoria	472,080	1,547,569	12,882,665	333,281
Queensland	593,813	5,131,699	20,331,838	152,212
South Australia	249,326	384,862	6,267,477	96,386
Northern Territory	24,509	513,383	57,240	996
Western Australia... ..	134,114	825,040	5,158,516	57,623
Tasmania	41,388	201,854	1,788,310	63,715
New Zealand	404,284	2,020,171	24,269,620	348,754
United Kingdom	2,001,743	11,761,830	31,839,799	3,543,331
Argentina	7,531,376	29,116,625	67,211,754	1,403,591
Austria	1,540,931	9,025,257	2,802,346	4,365,095
Belgium	253,431	1,861,412	235,722	1,161,761
Canada	2,132,489	7,234,085	2,705,390	2,912,509
Cape of Good Hope	255,060	1,954,390	17,306,461	385,945
Chile	516,764	2,303,659	4,224,266	216,360
Denmark	486,935	1,840,466	876,830	1,466,915
France	3,133,650	14,239,730	17,456,380	7,202,430
Germany	4,345,043	20,630,544	7,703,710	22,146,532
Hungary	2,173,649	7,152,568	7,904,634	5,489,946
Italy	905,993	6,190,990	11,160,420	2,503,733
Japan	1,494,506	1,297,974	4,085	284,729
Spain	494,853	2,317,478	15,471,183	2,296,011
United States of America	20,640,000	71,099,000	56,084,000	54,147,000
Uruguay	556,307	8,192,602	26,286,296	180,099

GOATS AND OTHER LIVE STOCK.

The number of goats in New South Wales at the end of 1910 was 59,781, including 5,792 Angora goats. In 1909 there were 5,042 Angora and 52,835 other goats. Angora goats are chiefly valued by pastoralists on account of their effectiveness as scrub exterminators, though the dry climate of the

western districts is eminently suitable for the production of the finest mohair. Although the mohair industry is but in its infancy, a shipment from this State which sold in London in November, 1910, realised 12½d. per lb.

Camels are used as carriers in the Western Plains, the number in 1910 being 1,013, and in the previous year 1,482.

Donkeys and mules are not extensively used in New South Wales, the number in 1909 and 1910 being 34 donkeys, 117 mules, and 51 donkeys, 132 mules respectively. It is claimed that mules have many points of advantage in comparison with horses for farm work, especially in areas of limited rainfall, for instance, longer period of utility, smaller cost of maintenance, combined with a readiness to labour, and comparative freedom from disease. As regards the profitableness of mule breeding, there is generally a good demand for them in the world's markets; they are largely used for various kinds of work in India, United States, South America, and South Africa, also in the sugar plantations of Fiji. The Indian Government regularly purchases them in large numbers for the army transport service.

Ostrich farming is successfully conducted in New South Wales, though not on an extensive scale. The number of ostriches at the end of 1910 was 381. As the climate of certain portions of the State is considered very suitable for ostrich farming the industry is believed to have a great future.

PASTURES PROTECTION DISTRICTS.

New South Wales is divided into sixty-seven Pastures Protection Districts, which are in charge of sixty Inspectors of Stock.

The number of horses, cattle, and sheep which travelled both ways along the various stock routes during the year 1911 was:—Horses, 146,025; cattle, 1,667,567; sheep, 38,275,856. There were 31,895 inspections made by the Inspectors of Stock, at which 114,810 horses were inspected, 1,326,872 cattle, and 23,361,460 sheep. 24,031 permits were issued, and 113 renewed permits.

SHEEP BRANDS AND MARKS.

Under the Pastures Protection Act, 1902, all sheep above the age of six months must be branded and kept legibly branded by the owner thereof with an "owner's brand" which has been duly recorded. Only one fire brand and one paint or tar "owner's brand," and one owner's ear-mark is allotted to each sheepowner for every run held by him. During the year 1910-11 the number of sheep brands and ear-marks recorded and transferred were as follows:—

	Recorded.	Transferred.	Total Registered.
Fire Brands... ..	93	78	171
Tar Brands	1,997	272	2,269
Ear Marks	1,711	252	1,963
Total	3,801	602	4,403

HORSE AND CATTLE BRANDS.

The number of horse and cattle brands registered up to 30th June, 1911, was 113,203. The number of brands registered during the year was:—Horse brands (alone), 407; cattle brands (alone), 525; horse and cattle brands, 2,188; and camels, 2; making a total of 3,122. The brands are registered under the provisions of the Stock Act, 1901.

PRICES OF STOCK.

The prices of stock show great variation in the course of a year; but the following statement shows a fair average of the market prices of each class of stock throughout 1910; in many instances the figures are based on actual sales:—

Class of Stock.	Fair Average Price.			Class of Stock.	Fair Average Price.		
	£	s.	d.		£	s.	d.
Horses—				Fat Sheep—			
Draught—Extra Heavy ...	35	0	0	Cross-bred Wethers—			
Medium ...	25	0	0	Extra Prime ...	1	1	0
Light ...	17	0	0	Prime ...	0	18	3
Saddle and Harness ...	18	0	0	Good ...	0	15	6
Carriage ...	30	9	0	Ewes—			
Fat Cattle—				Extra Prime ...	0	18	6
Bullocks—Extra Prime ...	11	10	0	Prime ...	0	15	3
Prime ...	9	17	6	Good ...	0	13	0
Medium ...	7	5	0	Merino Wethers—			
Light ...	5	12	6	Extra Prime ...	1	1	0
Cows—Prime ...	7	15	0	Prime ...	0	17	6
Other ...	4	12	6	Good ...	0	14	3
Steers and Heifers—Prime ...	6	15	0	Ewes—Extra Prime ...	0	18	3
Other ...	4	7	6	Prime ...	0	15	6
Vealers—Heavy and Prime ...	2	16	3	Good ...	0	12	6
Good ...	2	1	6	Lambs—Extra Prime ...	0	14	9
Calves—Medium ...	1	12	3	Prime ...	0	11	6
Light ...	0	19	9	Good ...	0	8	9
Prime Young ...	1	4	9	Pigs—Porkers—Heavy ...	2	0	0
Poddies ...	0	9	6	Light ...	1	11	9
Working Bullocks—Best ...	8	10	0	Baconers—Heavy ...	2	15	3
Other ...	6	0	0	Light ...	2	10	9
Dairy Cattle—				Backfatters ...	3	7	6
Milkers—Best ...	10	0	0	Slips and Suckers ...	0	10	3
Good ...	6	10	0	Goats—Angora ...	3	17	6
Inferior ...	3	10	0	Other ...	0	12	6
Springers—Best ...	7	0	0	Camels ...	27	10	0
Other ...	3	15	0	Mules ...	27	10	0
Dry—Best ...	4	5	0	Donkeys—Jacks (for breeding) ...	55	0	0
Other ...	2	5	0	Jennies ...	27	10	0

In the case of the horses, the average maximum price was £60 for carriage horses, and the minimum £7 for saddle and harness horses. In fat cattle, £14 5s. was the maximum for extra prime bullocks, and the minimum for prime cows £6 10s. Working bullocks ranged from £9 15s. to £5. For dairy cattle, the maximum for best milkers was £14, and the minimum for good milkers, £6. The prices of fat sheep vary not only with the class and condition of the animal and the number on the market, but also in accordance with the season and growth of the fleece. The range of average prices in 1910 was from a maximum of £1 4s. 3d. for extra prime cross-bred wethers to 11s., the minimum for merino ewes. The pigs brought prices ranging from £3 13s. 6d. for backfatters to £1 9s. 6d. for light porkers. The maximum price of angora goats was £5 5s.; for camels, £35; and donkeys, £60.

VALUE OF PASTORAL PRODUCTION.

The grazing industry constitutes the greatest source of wealth in the State, consequently information relating to pastoral returns and income is most desirable. But unfortunately it is not possible to ascertain with precision the values of land occupied for pastoral purposes, nor can the worth of the improvements be estimated. The value of the machinery in use on pastoral holdings during 1910 was estimated at £1,483,081. The values of such machinery during each year since 1901 may be seen in a table given in the chapter relating to agriculture.

From the nature of the industry, it is difficult to arrive at a correct estimate of the return from pastoral pursuits as at the base of production; but taking the Sydney prices as a standard, and making due allowance for incidental charges, such as agistment, railway carriage or freight, and commission, the value in 1910 would appear as £21,028,000. The returns received from the different kinds of stock are shown in the following table, for various years since 1891:—

Year.	Annual Value of Pastoral Production.					
	Sheep for Food.	Wool.	Cattle.	Horses.	Total.	Per Head of Population.
	£	£	£	£	£	£ s. d.
1891	2,367,000	9,996,000	1,535,000	827,000	14,725,000	12 17 10
1896	1,745,000	8,619,000	990,000	420,000	11,774,000	9 5 4
1901	2,071,000	8,425,000	1,374,000	682,000	12,552,000	9 3 7
1902	1,446,000	7,152,000	1,322,000	811,000	10,731,000	7 14 2
1903	2,327,000	8,361,000	1,339,000	750,000	12,777,000	9 0 9
1904	2,206,000	9,133,000	1,347,000	687,000	13,373,000	9 6 0
1905	2,753,000	12,103,000	1,533,000	724,000	17,113,000	11 13 2
1906	3,514,000	13,732,000	1,592,000	845,000	19,743,000	13 3 1
1907	3,222,000	16,459,000	1,574,000	1,026,000	22,281,000	14 9 9
1908	3,034,000	12,680,000	2,032,000	1,100,000	18,846,000	12 0 6
1909	2,742,000	13,128,000	1,878,000	1,292,000	19,040,000	11 19 2
1910	2,704,000	14,727,000	1,704,000	1,893,000	21,028,000	12 19 3

The value of production in 1910 was, with the exception of 1907, the highest on record, although the number of stock depastured was not nearly so great as in some of the earlier years, and it is satisfactory to note the rapid recovery which has been made since 1902. The improved position has been attained through the advancement in prices of pastoral products, especially of wool, which fortunately has been concurrent with a greatly increased production.

In order to exhibit clearly the extent of the variation in the prices of pastoral products, the following table has been prepared, showing the price-level in each year since 1904 as compared with 1901. The figures are calculated on the average prices of exports to the United Kingdom free on board ship at Sydney. The prices of 1901, represented by the number 1,000, are taken as a basis.

Article.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
Wool—greasy ...	1,200	1,300	1,433	1,553	1,272	1,200	1,266	1,200
„ scoured ...	1,115	1,396	1,509	1,585	1,258	1,245	1,188	1,132
Tallow ...	910	937	1,031	1,303	1,176	1,135	1,250	1,188
Leather ...	983	1,078	1,183	1,150	1,017	972	1,100	1,133
Frozen Beef ...	813	1,000	875	1,010	1,008	1,250	1,250	1,375
„ Mutton ...	1,214	1,031	1,125	1,055	1,021	1,063	1,250	1,250
Skins—Hides ...	1,092	1,250	1,375	1,316	1,053	950	1,100	1,113
„ Sheep, with wool ...	1,266	1,541	2,000	1,863	1,175	1,279	1,311	1,164
All articles ...	1,112	1,192	1,316	1,354	1,122	1,137	1,214	1,194

MEAT SUPPLY.

Slaughtering for food is permitted only in places licensed for the purpose, such establishments being very numerous. In the metropolitan district there are 56, and in the country districts, 1,226 slaughter-yards, employing respectively 571 and 3,757 men; in all 1,282 establishments and 4,328 men.

The following table shows the number of stock slaughtered during 1910:—

Stock	Metropolitan.	Country.	Total.
Sheep	2,333,876	4,693,226	7,032,102
Lambs	108,120	340,812	448,932
Bullocks	90,948	184,549	275,497
Cows	36,779	119,331	156,110
Calves	37,085	15,255	52,340
Swine	95,967	194,361	290,328

These figures represent the stock killed for all purposes. Of the sheep and lambs, 3,894,589, including 1,301,448 killed on stations and farms, represent the local consumption; 1,093,577 sheep were required by meat-preserving establishments; 2,218,813 for freezing for export; and 274,055 were boiled down for tallow. All the cattle killed, except 36,145 treated in the meat-preserving works and 10,357 exported frozen, were required for local consumption.

The following table shows the stock slaughtered in the various establishments for ten years:—

Year.	Establishments.	Employees.	Sheep.	Lambs.	Cattle.			Swine.
					Bullocks.	Cows.	Calves.	
1901	1,642	4,675	4,372,016	147,117	202,795	113,374	19,654	248,311
1902	1,548	3,685	4,502,513	133,337	164,916	99,450	23,765	208,352
1903	1,702	3,991	3,180,408	96,712	157,173	103,471	14,555	178,157
1904	1,693	3,961	2,927,078	131,458	211,839	72,778	14,472	232,955
1905	1,568	4,570	3,959,577	324,054	236,306	64,838	19,713	289,096
1906	1,522	4,391	4,229,407	252,648	237,722	94,955	26,200	281,650
1907	1,352	4,553	4,882,206	302,351	242,261	109,203	28,518	238,488
1908	1,216	4,056	4,840,367	361,125	233,006	114,689	28,879	210,319
1909	1,249	5,293	5,959,985	430,501	243,150	128,705	40,021	202,303
1910	1,282	4,328	7,032,102	448,932	275,497	156,110	52,340	290,328

The stock for the supply of meat for Sydney and suburbs are for the most part sold at the Flemington saleyards, near Sydney, and slaughtered in abattoirs at Glebe Island. The stock sold at Flemington are inspected *ante-mortem*, and any found diseased are destroyed. At Glebe Island the inspection is carried out by a Chief Inspector and twelve assistants, and there are also seven inspectors stationed at other slaughtering premises. All inspectors have authority to condemn meat which, from any cause, is unwholesome or unfit for food.

The carcasses of animals are conveyed from the slaughtering premises in covered louvred vans for distribution to retail shops, which are regulated by municipal authorities.

The particulars of operations at Glebe Island abattoirs during 1910 are shown in the following statement:—

Animals.	Slaughtered.	Condemned.	
		Number.	Per cent.
Bulls	1,063	132	12·41
Bullocks	74,135	366	0·49
Cows	33,024	1,697	5·13
Calves	34,564	1,800	5·20
Sheep	2,132,282	1,709	0·08
Pigs	70,397	972	1·38

In order to cope with the expanding requirements of the meat trade, new abattoirs are in course of construction at Homebush Bay, where facilities will be provided for both railway and steamer traffic.

The average prices of the best beef during 1910 ranged from 20s. 6d. per 100 lb. in February to 25s. 3d. in August.

THE MEAT EXPORT TRADE.

The table below shows the growth of the oversea export trade in New South Wales beef and mutton since 1891. The export of frozen meat varies, of course, with the seasons. It having been proved that a great expanse of country is suited to the breeding of large-carcase sheep, pastoralists have lately turned their attention in this direction, with a view to securing a larger share in the meat trade of the oversea countries:—

Year.	Frozen or Chilled Meat.				Preserved Meat.	
	Beef.	Mutton.	Total Weight.	Total Value.	Weight.	Value.
	cwt.	cwt.	cwt.	£	lb.	£
1904	3,721	202,135	205,856	280,899	4,751,029	70,770
1905	18,470	434,940	453,410	599,892	6,919,561	128,054
1906	32,640	455,165	487,805	579,294	3,121,933	62,307
1907	18,905	498,551	517,456	639,253	4,569,718	81,303
1908	6,473	398,594	405,067	535,473	5,756,395	105,702
1909	9,127	503,249	512,376	563,489	11,734,019	202,499
1910	74,868	810,175	885,043	1,104,247	16,492,876	288,341

There was a remarkable expansion in the meat export trade during 1910, and the prospects of its continuance are most favourable. The European countries are gradually opening their ports to frozen meat, and the trade in the East is increasing. In order to establish a high reputation for this product it is necessary for exporters to exercise the greatest care in preparation and transport. Stringent regulations have been issued by the Department of Trade and Customs regarding inspection and shipment. All stock killed for export are examined in a similar manner to those for local consumption, as shown above, and again after having been in cold storage just prior to shipment. In all the large modern steamers visiting the ports of New South Wales accommodation has been provided for this class of trade.

There were fifty-eight steamers engaged at the end of the year 1911 in the frozen meat trade between Australia and the United Kingdom. The carrying capacity of these steamers, which are fitted with refrigerating machinery, is 2,565,600 carcases.

The following statement, compiled from the British trade returns, shows the imports of frozen mutton into the United Kingdom during the past eight ears, and also the quantity imported from New South Wales:—

Year.	Total Imports.		Imports from New South Wales.	
	Quantity.	Value.	Quantity.	Value.
	cwt.	£	cwt.	£
1903	4,016,622	7,826,062	37,502	73,406
1904	3,494,782	6,861,531	67,200	130,839
1905	3,811,069	7,336,490	244,033	470,482
1906	4,082,756	7,645,935	341,963	609,275
1907	4,578,523	8,687,407	391,500	723,148
1908	4,385,771	8,140,029	315,998	564,326
1909	4,761,838	7,839,195	448,011	715,764
1910	5,405,923	9,802,858	776,084	1,261,173

It is satisfactory to note that the proportion of frozen mutton received into the United Kingdom from New South Wales has increased from 1 per cent. in 1903 to 14 per cent. in 1910.

Below is given a statement of the average wholesale prices obtained during the past ten years for English and frozen mutton sold in London. From an examination of the figures, it would seem that the class of people requiring locally-grown mutton in England is quite distinct from that using frozen mutton:—

Year.	Best English.	New Zealand.	Australian.	River Plate.	Year.	Best English.	New Zealand.	Australian.	River Plate.
	d.	d.	d.	d.		d.	d.	d.	d.
1901	7	3½	3¼	3¼	1906	7½	4	3½	3½
1902	7	4½	3½	3¼	1907	7½	4½	3½	3½
1903	7¼	4	3½	3¾	1908	7¾	4½	3½	3½
1904	7¼	4½	4	3¾	1909	6¾	3½	3	3½
1905	7¼	4½	3½	3¾	1910	7½	4½	3½	3¾

In addition to frozen beef and mutton, there was an export during 1910 of rabbits and hares to the value of £406,762, and other meats £76,249.

OTHER PASTORAL PRODUCTS AND BY-PRODUCTS.

The minor products arising from pastoral occupations include tallow, lard and fat, skins and hides, furs, hoofs, horns, bones, bone-dust, glue pieces and hair. Some of these are more specially discussed in the chapter on Manufactories and Works, and need only brief mention here.

The production of tallow has declined considerably since 1897, consequent on the decrease in the number of live stock depastured, and the falling-off in the market value of the article. In earlier years the production was much greater than for any of the years shown hereunder, for in each of the years 1894 and 1895 it reached nearly 54,000 tons:—

Year.	Estimated Quantity of Tallow.		
	Produced.	Locally consumed.	Exported.
	tons.	tons.	tons.
1901	22,536	6,206	16,330
1902	12,559	4,884	7,675
1903	11,760	5,710	6,050
1904	17,654	5,897	11,757
1905	24,758	5,681	19,077
1906	24,396	5,838	18,558
1907	24,527	5,788	18,739
1908	21,665	5,881	15,784
1909	32,006	5,810	26,196
1910	37,805	5,373	32,432

The overseas exports of skins and hides, the produce of New South Wales, are of considerable value, and show a large increase during the last decade, as will be seen from the following statement. The other products of the pastoral industry are of minor importance, as leather, valued at £329,000 in 1910, is classified as a product of the manufacturing industry:—

Products.	Value of Oversea Exports.		
	1900.	1905.	1910.
Skins and Hides—	£	£	£
Cattle	51,348	101,617	209,981
Horse	248	1,390	1,220
Rabbit and hare ..	2,130	153,779	327,874
Sheep	81,585	292,022	435,114
Other	104,154	130,204	525,663
	239,465	669,012	1,499,852
Hoofs, horns, and bones	18,264	14,445	19,126
Bone dust	25,657	12,746	17,069
Hair	6,368	10,007	16,204
Lard and animal fats ..	437	859	2,646
Tallow	359,796	418,234	950,440
Glue-pieces and sinews	10,339	5,478	4,984
Furs	1,435	378	131
Total	661,761	1,131,159	2,510,452

NOXIOUS ANIMALS.

The only large carnivorous animal in Australia at all dangerous to stock is the dingo, or native dog; but graminivorous animals, such as kangaroos, wallabies, hares, and rabbits, are deemed by the settlers equally noxious. The rabbits, which are the greatest pests, first found their way into this State from Victoria, where some were liberated about fifty years ago in the Geelong district. Their presence first attracted serious attention in 1881, when complaints were heard in the south-west portion of this country of the damage done. They multiplied so rapidly that, in 1882, they were to be met on most of the holdings having frontages to the Murray River. Attempts to cope with them under the Pastures and Stock Protection Act were ineffectual, and the Rabbit Nuisance Act was passed. This Act provided for the compulsory destruction of rabbits by the occupiers of the land, who were to receive a subsidy from a fund raised by an annual tax upon stockowners, but the fund soon proved inadequate, and from the 1st May, 1883, to the 30th June, 1890, when the Act was repealed, it was supplemented by £503,786 from the Consolidated Revenue. The tax upon stockowners yielded £831,457, and landowners and occupiers contributed £207,864, so that the total cost during the whole period exceeded £1,543,000.

The Rabbit Act of 1890 repealed the 1883 Act and those provisions of the Pastures and Stock Protection Act relating to rabbits. It also provided, as occasion required, for the proclamation of Land Districts as "infested," and for the construction of rabbit-proof fences. From the 1st July, 1890, to the 30th April, 1902, the State expenditure under this Act was £41,620, nearly all of which has been devoted to the erection of rabbit-proof netting. From May, 1902, to December, 1903, the expenditure was £10,548.

Under the Pastures Protection Act of 1902 the State was divided into districts, the protection of the pastures being supervised by a board elected in each district by the stockowners. The Pastures Protection Boards are empowered to levy a rate upon the stock, and to erect rabbit-proof fences on any land, take measures to ensure the destruction of all noxious animals and pay rewards of all such destruction. The State expenditure on rabbit extermination since the establishment of the Boards has consisted mainly of payments to the Railway Commissioners for the maintenance of rabbit-proof fences, amounting to £8,283 to the end of June, 1911.

In order to prevent the spread of the pest, and also with a view of assisting in its destruction, fences have been erected by the Government of the State at numerous places. The longest of these traverses the western side of the railway line from Bourke, *via* Blayney and Murrumburrah, to Corowa, in the extreme south of the State, a distance of 612 miles, the Railway Commissioners undertaking the work of supervision. On the border between New South Wales and South Australia there is a fence which extends from the Murray River northwards, a distance of about 350 miles. On the Queensland border a rabbit-proof fence has been erected between Barrington and the river Darling, at Bourke, a distance of 84 miles; while another has been erected at the joint expense of the Governments of Queensland and New South Wales, from Mungindi to the Namoi River, a distance of about 115 miles. The total length of rabbit-proof fences erected by the State up to 30th June, 1911, was, approximately, 1,332 miles, at a cost of £69,888; by private persons, 81,233 miles, at a cost of £4,611,427; and by Pastures Boards, 348 miles, at a cost of £14,459.

The chief means adopted for the destruction of the pest are poisoning and trapping, but it has long been recognised that these methods are inadequate to cope with the evil. In 1906 Dr. Danysz, an eminent French scientist, claimed to have discovered a disease which was fatal to rabbits and easily

propagated amongst them, while proving harmless to other animals or to birds. A liberal offer was made by the pastoralists of the State for the introduction of the disease, and the use of Broughton Island, near Newcastle, was granted by the New South Wales Government for the purpose of experiments with animals and birds, under the supervision of a medical officer of the Health Department. The experiments were continued during 1907, and in November of that year the Supervising Medical Officer reported that although the microbe used could be made to infect small animals, there was no reason to apprehend danger from its practical use, but the efficacy of the virus as a destroyer of rabbits had not been demonstrated.

RABBITS AND HARES—EXPORTED.

Although rabbits and hares have commercial value both as food and for skins—the exports to oversea countries in 1910 being no less in value than £406,762 for food purposes, and £327,874 for skins—the return furnished is but poor compensation for the enormous inroads upon pastures.

The following table shows the exports of Frozen Rabbits and Hares and Skins from New South Wales to countries outside the Commonwealth of Australia during each year since 1903 :—

Year.	Value of Domestic Exports beyond Australia.		
	Frozen Rabbits and Hares.	Rabbit and Hare Skins.	Frozen Rabbits, Hares, and Skins.
	£	£	£
1903	37,274	35,923	73,197
1904	54,286	96,810	151,096
1905	143,768	153,779	297,547
1906	246,803	293,260	540,063
1907	301,115	209,754	510,869
1908	247,525	138,403	385,928
1909	329,020	159,904	488,924
1910	406,762	327,874	734,636

In the State itself, these animals now form a common article of diet, both in the metropolis and country, especially during the winter months, when large numbers of men are engaged in their capture and distribution. The fur is largely used in the manufacture of hats. The total return from rabbits and hares was estimated at £908,000 during 1910.

CATTLE TICK.

The regulations prohibiting and controlling the admission of stock entering this State from Queensland have been strictly enforced, the border being divided into five sections, which are governed by different conditions. The fences have been continuously patrolled and kept in good order, and the care of departmental dips and yards well maintained. During the year 1910–11 there were 122 men employed in the attempt to destroy the cattle tick, the expenditure being £20,910.

WATER CONSERVATION AND PUBLIC WATERING PLACES.

The necessity of providing a constant water supply for domestic use, and also for stock in the dry portions of the interior of New South Wales, induced the Government to devote certain funds to the purpose of bringing to the surface such supplies as might be obtained from the underground sources which exist in the tertiary drifts and the cretaceous beds which extend under an immense portion of the area of the State.

The probability of the existence of underground water had long been a subject of earnest discussion, but doubts were set at rest in 1879 by the discovery of an artesian supply of water on the Kallara run, at a depth of 140 feet. The Government then undertook the work of searching for water, and since the year 1884 the sinking of artesian wells has been conducted in a systematic manner, under the direction of specially-trained officers.

The following statement shows the extent of the work which has been successfully effected by the Government, and by private owners:—

Bores.	Flowing.	Pumping.	Total.	Total Depth.
				feet.
For Public Watering-places, Artesian Wells, &c.	107	23	135	270,349
For Country Towns Water Supply	3	.....	3	4,354
For Improvement Leases	48	3	51	83,929
Total, Government Bores	158	31	189	358,632
Private Bores... ..	214	42	256	365,642

The average depth is 1,800 feet in the case of Government bores, and of private bores, 1,400 feet.

The deepest bore is at Boronga, in the Moree district, where boring has been carried to a depth of 4,341 feet; this well yields a supply of 1,062,133 gallons per diem. The largest measured flow obtained from Government bores is from the B 3 Gonan, near Walgett; the depth of this well is 2,729 feet, and the flow 1,229,915 gallons per diem. The State flowing bores yield about 68 million gallons of water per day, and in addition there are pumping bores which supply 459,600 gallons per day; but in many cases the flow is estimated only, and in others no data are available.

The Artesian Wells Act of 1897 provides that any occupier of land, or any group of occupiers, may petition the Minister to construct an artesian well, and the necessary distributing channels. The petitioners are required to transfer to the Crown an area, not exceeding 40 acres, embracing the site for the bore, and to pay such charges as may be assessed by the Land Board, which shall not exceed the yearly value to each occupier of the direct benefit accruing to his land from the supply of water, but such charges must not exceed 6 per cent. per annum on the cost of the works. Provision is also made for the Minister to take the initiatory steps when a group of settlers are not in agreement; it is enacted that a two-thirds majority, occupying two-thirds of the area affected, shall rule, and that the minority must come into the scheme and pay proportionately with the others under the provisions of this Act. Thirteen bores watering an area of 381,230 acres have been sunk.

Much has been done in the way of artesian boring by private enterprise. As far as can be ascertained, 279 private bores have been undertaken in New South Wales, of which 20 were failures, and 3 are in progress. Information concerning the daily flow is not available, as in many cases this has not been gauged at all, whilst in the others the measurements cannot be regarded as reliable.

The Water and Drainage Act of 1902 authorises the construction by the Government of works for affording supplies of water, for irrigation or stock purposes, and for draining swamp lands. The works are administered by Trusts constituted under the Act. The trustees make an assessment to cover maintenance, 4 per cent. interest and 2 per cent. sinking fund, and to liquidate the capital cost of the work at the end of twenty-eight years. Under this Act trusts for the supply of water for stock purposes and irrigation have been constituted in connection with 55 artesian wells and 5 schemes, for the improvement of natural offtakes of effluent channels for the purpose of diverting supplies from the main rivers, and in three instances for the construction of dams across stream channels. The total area included within these trusts amounts to 4,380,000 acres. In addition, twenty trusts have been formed for the purpose of draining swampy lands, and rendering them fit for pastoral and agricultural purposes, and the area dealt with amounts to 88,480 acres.

Watering places are established on all the main stock routes of the State, and consist of tanks, dams, wells, and artesian bores. At the close of 1910 there were 636 public watering-places, consisting of 464 tanks and dams or reservoirs, 101 wells, and 71 artesian bores. Except at those dams and reservoirs which are of large extent and capacity, stock are not allowed direct access to the tanks, but are watered at troughs which are filled by means of service reservoirs, into which the supply is raised by various methods—steam, horse, or wind power. From the wells the water is mostly drawn by whims and self-acting buckets.

DAIRYING INDUSTRY.

DAIRY FARMING.

THE dairying industry is now a very important factor in the wealth and prosperity of New South Wales. Although the first dairy farm for the manufacture of butter was established on the Nepean River, dairying as a profitable pursuit was in later years conducted mainly on the South Coast, in the Shoalhaven and Illawarra districts. For many years its progress was slow, and it was not until the introduction of the creamery and factory system that any great development occurred. With the manufacture of butter by machinery, and the perfection of the cold-storage system, the real business of dairying may be said to have begun.

The first creamery and factory were established in the South Coast district, and for some years dairying was confined mainly to this district; but eventually it was firmly established in the North Coast, especially on the Clarence and Richmond Rivers, and the advantages of the northern coastal rivers have induced a large migration from the South Coast district.

The following figures show the dairy production in each division of the State during 1910:—

Division.	Dairy Cows in Milk at end of year.	Total yield of Milk.	Butter made.	Cheese made.
	No.	gallons.	lb.	lb.
Coastal—				
North Coast	237,065	98,094,477	38,053,814	171,696
Hunter and Manning ...	125,475	48,299,825	17,104,083	98,483
County of Cumberland	22,951	10,585,797	889,987	31,806
South Coast	94,690	33,740,926	9,431,596	4,344,595
Total	480,181	190,721,025	65,479,480	4,646,580
Tableland—				
Northern	29,737	6,783,383	2,377,418	160,063
Central	26,627	7,460,989	2,111,858	58,359
Southern	15,369	3,475,781	967,577	25,780
Total	71,733	17,720,153	5,456,853	244,202
Western Slopes—				
North	19,920	7,242,694	1,230,980	15,725
Central	10,043	3,297,822	762,059	.....
South	22,442	7,436,967	2,466,225	284,382
Total	52,410	17,977,483	4,459,264	300,107
Western Plains—				
North	4,368	1,337,908	93,761	.....
Central	5,764	1,636,400	167,910	.....
Total	10,132	2,974,308	261,671	.....
Riverina	15,357	5,362,525	906,401	200
Western Division	2,973	822,208	61,161	.....
Total, New South Wales	632,786	235,577,702	76,624,830	5,191,089

Although dairying is confined mainly to the coastal regions, where grass is available for food throughout the year, it is also actively pursued in the more favoured parts of the non-coastal regions for the purpose.

of supplying local wants, and already in places remote from the metropolis well-equipped factories have been established. In these localities the industry is generally carried on in conjunction with wheat-farming and sheep-raising, and sufficient fodder must be grown to carry the cattle through the winter months.

The system of share-farming has been applied to dairying chiefly in the northern coastal divisions. As a general rule the farm and stock are the property of one party, and the other conducts the farm work. In 1910 the area of dairy farms under this system was 87,713 acres, of which 10,747 acres were in the North Coast and 45,978 acres in the Hunter and Manning Division.

Most of the native grasses of the State are particularly suitable for dairy cattle, as they possess milk-producing as well as fattening qualities, and these are supplemented in winter by fodder, such as maize, barley, oats, rye, lucerne, and the brown variety of sorghum or planter's friend. Ensilage is also used as food, but not so generally as it should be, and the quantity made varies considerably in each year. In the year 1910 the quantity made was 29,616 tons. The area of land devoted to sown grasses has been largely extended during last few years, and in March, 1911, it amounted to 1,055,303 acres. The produce of this land is principally used as food for dairy cattle, and as the area is still below the present requirements, an extension of this form of cultivation may be anticipated. The number of dairy cows in milk, the area under sown grasses, and the quantity of ensilage made in each district of the State during 1910 were as follows:—

Division.	Dairy Cows in Milk.	Area under Sown Grasses.	Ensilage made.
Coastal Division—	No.	acres.	tons.
North Coast	237,065	702,466	547
Hunter and Manning	125,475	126,756	1,010
County of Cumberland	22,951	3,221	4,018
South Coast	94,690	182,695	12,550
Total	480,181	1,015,138	18,125
Tableland Division—			
Northern	29,737	13,599	699
Central	26,627	5,962	1,458
Southern	15,369	3,478	171
Total	71,733	23,039	2,328
Western Slopes—			
North	19,920	4,274	170
Central	10,048	368	528
South	22,442	5,265	1,956
Total	52,410	9,907	2,654
Western Plains—			
North	4,368	15	.....
Central	5,764	1,719	1,115
Total	10,132	1,734	1,115
Riverina	15,357	5,418	5,294
Western Division	2,973	67	100
Total, New South Wales ...	632,786	1,055,303	29,616

YIELD OF MILK.

The number of dairy cows shows a considerable increase since 1902, although several of the seasons were unfavourable; and, still more important, as is apparent from the following figures, there has been also an increase in their average yield of milk :—

Year.	Dairy Cows in Milk at end of year.	Production of Milk.	Average Yield of Milk per Cow.
	No.	gallons.	gallons.
1901	417,835	122,750,500	294
1902	351,287	105,742,900	301
1903	362,429	129,966,100	359
1904	424,936	158,650,800	373
1905	442,950	162,918,600	368
1906	494,820	185,941,230	376
1907	506,395	183,303,474	362
1908	527,843	188,518,562	357
1909	566,378	201,183,337	355
1910	632,786	235,577,702	372

It would be more accurate to base the average yield on the mean number of cows in milk during the year. Owing, however, to the great difficulty in ascertaining that number, which depends not only on the actual number of cows, but on the length of time during which they were in milk, the average has been deduced as above, and probably is as accurate as can be obtained. It is evident that there has been a substantial increase in the average yield since the first year quoted; the figures for 1908 and 1909 are not so high as in the previous five years, as the seasons were not favourable in many dairying districts, but there was a marked improvement in 1910.

Almost as important as the average yield of milk is the percentage of butter-fat, and it is satisfactory to note that this has been well maintained throughout the period reviewed in the following table, which shows the quantity of butter made per 100 gallons of milk treated on farms and in factories :—

Year.	Quantity of butter per 100 gallons of milk treated.		
	On Farms.	In Factories.	On Farms and in Factories.
	lb.	lb.	lb.
1902	34.5	39.6	39.0
1903	34.5	39.7	39.1
1904	35.4	41.7	41.1
1905	34.0	41.5	40.7
1906	32.0	38.0	37.8
1907	32.4	39.8	39.2
1908	33.6	40.2	39.6
1909	33.2	38.7	38.2
1910	32.5	39.8	39.2

The decreased proportion of butter-fat in 1906 and 1909 was due to unfavourable seasons in parts of the coastal dairying districts. During the winter and spring months of the year 1910 the South Coast districts were affected by the abnormally low rainfall.

The proportion of factory-made butter in the total production has increased from 72 per cent. in 1895 to 93 per cent. in 1910; and naturally, as in factories butter of the highest quality may be produced at a very reduced cost as compared with farms.

Full particulars regarding dairy factories are given in the chapter "Manufacturing Industry."

CHEESE-MAKING.

The advance in cheese-making has not been commensurate with the expansion of the butter trade; in 1909 the quantity of cheese made was only 19 per cent. more than in 1896, but the production of butter had increased by 143 per cent. The demand for cheese is much more limited but as the production does not meet the requirements of the local market, it is evident that the manufacture of butter has been found more profitable. It is certain that the manufacture of cheese will never command the same attention as butter, owing to its great disadvantages as an article of export. Cheese matures quickly, and, unlike butter, cannot be frozen; and it decreases in value after a certain period. Moreover, it has only half the money value of butter, while the cost of freight is practically the same; so that it is not surprising that even where cheese can be produced in New South Wales under excellent conditions, its manufacture is not being greatly extended.

From a previous table showing the manufacture of cheese in districts it will be seen that cheese-making is practically confined to the South Coast; in fact, the quantity made in other parts of the State is becoming smaller each year. The South Coast production in 1910 was equivalent to 90 per cent. of the total in all divisions.

The following table shows, for each year of the last decennial period, the production of cheese in factories and on farms:—

Year.	Production of Cheese.		
	In Factories.	On Farms.	Total.
	lb.	lb.	lb.
1901	2,428,599	1,410,236	3,838,835
1902	2,691,439	1,456,599	4,148,038
1903	3,340,510	1,407,666	4,748,176
1904	2,677,830	1,545,791	4,223,621
1905	2,997,982	1,627,998	4,625,980
1906	3,459,641	1,929,704	5,389,345
1907	3,261,894	1,324,963	4,586,857
1908	3,260,389	1,502,971	4,763,360
1909	3,248,515	1,526,753	4,775,268
1910	3,892,506	1,298,583	5,191,089

As in the case of butter, the proportion of cheese made in factories is increasing.

Although the manufacture of cheese for export has many disadvantages, it is evident that these must apply to a similar extent in other countries, and it is, therefore, notable that there is a large import into this State.

CO-OPERATION IN DAIRY FACTORIES.

Most of the factories dealing with dairy produce are established on the co-operative principle, which has steadily gained favour, until in 1910 over 80 per cent. of the factory butter was made in these establishments. The following figures showing a comparison of the co-operative and proprietary factories are exclusive of butter, 107,941 lb., and cheese, 811,621 lb., made in factories worked in conjunction with farms:—

		Butter Factories.		Cheese Factories.	
		No.	Output.	No.	Output.
			lb.		lb.
Co-operative	...	101	58,991,069	8	866,021
Proprietary	...	47	12,399,030	23	2,214,864
Total	...	148	71,390,099	31	3,080,885

OTHER MILK PRODUCTS.

In addition to butter and cheese, there are other milk products which might receive more attention than at present. The manufacture of condensed milk is an instance, as the local production is not sufficient, and large importations are necessary to supply the demand for this article. At present there are two factories in the State, situated at Bomaderry and Belford. A somewhat similar product, known as concentrated milk, is also being manufactured at these factories. This article will keep for months in cool chambers, and is used principally on ocean-going steamers. Being without sugar, it has all the richness and flavour of fresh milk, and consequently is more useful than condensed milk, which is not palatable to many people. The total quantity of milk used in the manufacture of the two products in 1910 was 581,456 gallons, and the output of the articles totalled 1,940,481 lb., valued at £26,676.

SWINE.

The breeding of swine, which is usually carried on in conjunction with dairy-farming, has been very much neglected in New South Wales, as the fluctuations in the following table tend to show:—

Year.	Swine.	Year.	Swine.	Year.	Swine.
	No.		No.		No.
1860	180,662	1893	240,860	1902	193,097
1865	146,901	1894	273,359	1903	221,592
1870	243,066	1895	223,597	1904	330,666
1875	199,950	1896	214,581	1905	310,702
1880	308,205	1897	207,738	1906	243,370
1885	208,697	1898	247,061	1907	216,145
1890	283,061	1899	239,973	1908	215,822
1891	253,189	1900	256,577	1909	237,849
1892	249,522	1901	265,730	1910	321,632

The breeding of swine is an important factor in successful dairy-farming, but the number of stock has not kept pace with the increase in the quantity of milk available for pigs' food. A farmer who possesses his own cream separator can utilise the separated milk for the purpose of feeding pigs, and those who sell their milk to a creamery can sometimes obtain separated milk without cost; in any case it can be purchased at about a farthing per gallon, a price which renders it a most economical food for pigs, provided that such crops as maize, rye, peas, mangolds, pumpkins, &c., are grown to supplement the milk diet. Under these circumstances, and as it is no uncommon thing for good bacon pigs to bring over £3 each in the open market, the breeding of swine must be a profitable pursuit. Until recent years, there was some difficulty in obtaining suitable pigs for breeding purposes, but as stock from the best imported strains may now be purchased at the Government Experiment Farms and other Institutions, this difficulty has been overcome. The breeds generally met in the State are the improved Berkshire, Poland, China, and Yorkshire strains.

The following statement shows the number of pigs in each Division at the end of 1910, and the quantity of bacon and ham made:—

Division.	Swine.	Bacon and Ham cured.
	No.	lb.
Coastal Division—		
North Coast	101,155	4,064,134
Hunter and Manning	61,293	623,625
County of Cumberland	21,531	5,309,356
South Coast	37,725	642,192
Total	221,704	10,639,307
Tableland Division—		
Northern	12,682	393,108
Central	18,385	387,700
Southern	7,053	220,745
Total	38,120	1,001,553
Western Slopes Division—		
North	12,843	107,283
Central	8,928	175,059
South	16,239	330,652
Total	38,010	612,994
Western Plains—		
North	1,796	9,193
Central	3,932	73,295
Total	5,728	82,488
Riverina	13,462	266,339
Western Division	4,608	17,386
Total, New South Wales	321,632	12,620,067

As with butter and cheese, the production of bacon and ham is confined chiefly to the coast districts, but the breeding of pigs is more evenly distributed throughout the State.

BACON AND HAMS.

There is no reason why the production of bacon and hams should not be very largely increased, as, except in very rare instances, it has not been sufficient to meet local requirements. The production has varied with the seasons, but the general tendency is towards an increase, as may be seen from the following table:—

Year.	Production of Bacon and Hams.		
	Factory.	Farm.	Total Production.
	lb.	lb.	lb.
1901	7,392,060	3,688,831	11,080,891
1902	6,143,030	2,852,826	8,995,856
1903	5,664,492	2,200,279	7,864,771
1904	7,343,220	3,337,312	10,680,532
1905	6,931,217	4,721,223	11,652,440
1906	7,337,910	4,505,685	11,843,595
1907	7,210,685	3,117,841	10,358,526
1908	7,296,532	2,191,767	9,488,299
1909	7,856,466	2,074,911	9,931,377
1910	10,183,441	2,436,626	12,620,067

At present there are few factories devoted entirely to the curing of bacon and hams, and more bacon factories fitted with refrigerating machinery are required, so that curing may be continued during the summer months. In these central establishments, moreover, greater care could be exercised both in securing uniformity in the quality of the article and in cutting. For export the animals should be grown larger, as English bacon pigs weigh 300 or 400 lb. each. The pigs bred in this State are usually sold at from 60 lb. to 90 lb. weight, the majority being sent to the Sydney market alive. The average prices for pigs during 1910 are shown, with those of other live stock, in the chapter dealing with Pastoral Industry. Owing to the neglect to grow root crops for the purpose of feed during the winter, when milk is scarce, the demand for store pigs at the commencement of the summer is usually very great, and there is a corresponding glut of fat pigs at low prices as winter approaches.

LARD.

Statistics showing the total production of lard are not available; during the year 1910 the quantity made in bacon factories amounted to 598,341 lb., valued at £11,836, but as the manufacture of this product is carried on in many other establishments and on farms this quantity represents only a portion of the total output. It is apparent however that the production is not sufficient for local requirements, which are supplied by importation mainly from the other Australian States.

During 1910 the oversea exports of lard, lard oil, and refined animal fats produced in New South Wales amounted to 113,902 lb., valued at £2,626, and the direct imports from oversea countries to 22,739 lb., valued at £724.

DAIRY INSTRUCTION.

Educational and experimental work relating to dairying is conducted by the Department of Agriculture at several of the State institutions, notably at the Hawkesbury Agricultural College, at Wagga and Grafton Experiment Farms, and at the Wollongbar Dairy Farm in the North Coast, and at the Berry Stud Farm in the South Coast district.

The Berry farm is devoted to the breeding and raising of pure bred stock, and at Wollongbar and Grafton experimental work is done in connection with the cross-breeding of cattle; at Wagga Jersey cattle are bred. At each of these institutions and at the Hawkesbury College provision is made for students, and it is intended to establish a dairy school in connection with the Berry farm, where special courses of veterinary instruction will be given.

In order to enable factory managers and butter-makers to improve their scientific knowledge dairy science schools are held for short terms at different dairying centres; two during 1910 were held at Bega in the South Coast and at Port Macquarie in the North Coast district.

A staff of instructors travel throughout the principal dairying districts during each year to give instruction and advice in cream-grading, butter and cheese-making, and all other matters connected with the industry.

Lectures and demonstrations in the theory and practice of milk and cream testing are given to senior pupils in State schools in the dairying districts.

HERD-TESTING ASSOCIATIONS.

Efforts are being made by the Department of Agriculture to encourage the organisation of herd-testing associations as a most effective means of improving the dairy herds and increasing the milk yield. In many localities the associations will be conducted in connection with the dairy factories, where samples supplied by the farmers could be tested with a minimum of expense. Acting upon the results of the tests, the farmers would be enabled to cull unprofitable animals from their herds, and with stricter attention to breeding they should reap considerable benefit by reason of increased quantity and the higher quality of their products.

EXPORT OF DAIRY PRODUCTS.

The following table shows the oversea exports of butter, cheese, and bacon during the last five years. The export of bacon increased considerably during 1910, owing to the opening up in England of a market for heavy sides of green bacon, a class which is not suitable for local requirements:—

Year.	Oversea Exports.					
	Butter.		Cheese.		Bacon and Ham.	
	lb.	£	lb.	£	lb.	£
1906	22,991,303	962,877	99,918	2,652	83,862	2,932
1907	17,832,354	769,463	134,468	3,813	80,346	3,368
1908	17,261,331	813,490	53,554	1,921	82,899	3,742
1909	17,381,117	752,487	53,117	1,732	62,380	2,670
1910	27,047,481	1,223,518	82,294	2,413	500,296	14,551

Under the Customs regulations the dairy produce for export must be submitted to inspection and graded before shipment, and the exportation of inferior products is prohibited unless the goods are labelled as below standard. The examination in this State is conducted by a special staff of Inspectors connected with the Department of Agriculture.

The export trade in butter has grown rapidly, and is carried on almost entirely with the United Kingdom, whose immense population presents a ready market for all products of the dairying industry. The imports of New South Wales butter into the United Kingdom during the last five years are shown hereunder :—

Year.	Imports of Butter from New South Wales.	Proportion of English Imported Butter.
	ewt.	per cent.
1906	180,655	4.17
1907	195,289	4.64
1908	138,953	3.30
1909	132,708	3.27
1910	217,780	5.03

Butter from this State has attracted attention in London only in recent years; the great import and established reputation of the Swedish or Danish article had practically controlled the market. But the position is changing, so that 33 per cent. of all butter imported into the United Kingdom during the four months December, 1910, to March, 1911, was of Australian origin, and on many occasions Australian creamery butter has commanded a higher value than Danish.

PRICES OF BUTTER IN LONDON

The prices per cwt. for New South Wales butter in London during the last four seasons were as shown below :—

Month during which Sales were effected in London.	1907-1908.		1908-1909.		1909-1910.		1910-1911.	
	Top.	Bottom.	Top.	Bottom.	Top.	Bottom.	Top.	Bottom.
	1907.		1908.		1909.		1910.	
	s.	s.	s.	s.	s.	s.	s.	s.
August ...	100	95	*	*	*	*	*	*
September ...	98	96	*	*	120	104	116	112
October ...	119	112	121	117	120	106	112	110
November ...	119	112	118	115	114	113	107	104
December ...	120	114	107	105	110	108	103	101
	1908.		1909.		1910.		1911.	
January ...	122	115	108	106	122	110	106	104
February ...	136	126	106	104	117	113	102½	98½
March ...	117	109	105	103	122	118	101½	98
April ...	111	105	98	96	116	114	104	100
May ...	110	103	98	96	106	102	98	95½
June ...	106	97	98	96	103	100	101	99
July ...	109	104	106	104	102	100	*	*

*No quotations.

The experience of the export trade shows that butter should be made, salted and coloured to suit the taste of the particular market for which it is intended. So long as the present standard is maintained, no doubt the product of this State will continue in its present demand, and there is no reason why further improvement should not be made by greater attention to detail.

In earlier years the difficulty in securing ocean freights during the export season constituted a severe drawback, but the trade has assumed such important dimensions that it is now the subject of keen competition among shipping companies, with consequent reduction in charges.

The freight on butter forwarded by mail steamers from Sydney to London during the seasons 1900-1 to 1904-5, was 3s. 6d. per box of 56 lb., while other steamers accepted shipments at rates varying from $\frac{3}{4}$ d. to $\frac{3}{4}$ d. per lb. For the season 1905-6 mail steamers contracted to accept 1s. 10d. per box, while other steamers charged $\frac{3}{4}$ d. per lb., or 1s. 9d. per box. Since the 1st January, 1908, the rates have been 2s. 6d. per box by mail steamers, except those of the Orient Company, by which the charge has been 2s. 4d. since the date of the mail contract with the Federal Government. The charge by all other steamers, including the cargo boats of the Peninsular and Oriental Company, is 2s. per box.

DAIRYING INDUSTRY.—VALUE OF PRODUCTION.

The value of the production from the dairying industry during 1910 was £4,462,000, to which may be added £334,000 obtained from the sale of swine, making a total of £4,796,000. The value from each produce was as follows:—

	£
Butter	3,370,000
Cheese	122,000
Milk (not used for butter or cheese)	615,000
Milch Cows	355,000
Swine	334,000
	<hr/>
	£4,796,000

The value of dairy production in 1910 was £732,000 above the value in the year 1907, which had previously been the highest recorded.

The value of farm implements and machinery used in the dairying industry during 1910 was £534,745. A comparison of machinery used in rural industries is shown in the chapter dealing with Agriculture.

POULTRY-FARMING.

Poultry-farming has been conducted in past years in conjunction with the dairying industry, but the interests involved have become so important commercially, that a distinct industry relating to poultry alone has now been developed. Great attention is given to secure the most modern methods in the conduct of the farms, both as to the excellence of breeds for egg-producing and for table, and as to the treatment of the birds in view of expected profitable results. Information is not available regarding the full production, but a general estimate based on the accessible records shows the value for 1910 to be approximately £1,170,000, as compared with £619,000 in 1904.

Since 1901, egg-laying competitions organised by private subscription have been conducted at the Hawkesbury Agricultural College, with the object of stimulating this branch of the poultry industry. These competitions have attracted widespread interest, and birds for competition are sent by owners from all parts of New South Wales, the other Australian States, and New Zealand, and some have been sent from America.

By this means much valuable information has been gained by practical experiment and research; tests are arranged and records kept of results obtained from the various breeds of poultry and by different methods of treatment.

FORESTRY.

THE earliest evidence of attention to State forestry is found in the publication of Timber License Rules in the year 1839.

In 1871 the first timber reserves were notified, and in 1877 regulations governing the cutting and use of timber were enacted.

During the ensuing years little was done in the way of protecting the forest resources. The early colonists cut down timber just as their requirements prompted, and gave no heed to the necessity for systematic replacement to meet the wants of the future; and as there was no specially constituted body with powers of supervision or conservation, large tracts of country were badly denuded and much valuable timber destroyed.

Realising the necessity for remedial measures, the Government in 1907 appointed a Royal Commission to investigate the matter, and, *inter alia*, to report upon the effectiveness of the forest laws, and to indicate what steps should be taken in the direction of afforestation and reafforestation.

At the present time the forest lands of the State containing timber of commercial value comprise about 15 million acres, and of this area about 7½ million acres have been reserved for forestry purposes.

Although the total forest area is not large, it contains a great variety of useful timbers, which in hardwoods comprise about twenty different kinds of good commercial value, including such renowned constructive woods as ironbark, tallow-wood, and turpentine, whilst in soft or brush woods there are about twenty-five varieties, including such valuable timbers as cedar, beech, pine, and teak.

The Royal Commission estimated that at the present rate of consumption the supplies of hard and soft wood timbers would last about forty-seven and twenty-eight years respectively, and recommended the passing of a Forestry Act, the strengthening of supervisory machinery, and that practically all the lands reserved for forestry purposes should be permanently dedicated under the Act for the preservation, growth, and re-growth of timber.

Among other recommendations were the prohibition of export of certain timbers which are of special value for local constructive purposes; the establishment of a Department of Forestry; the appointment of a Director of Forests; and the initiation of a vigorous policy of afforestation and reafforestation.

Following this report, a Forestry Act was passed at the end of 1909, establishing a Forestry Department, with a Director of Forestry and other necessary officers.

The Government may purchase, resume, or appropriate land for the purpose of a State forest, and, subject to certain restrictions, may dedicate Crown lands as State forests.

Timber-getters' and other licenses may be granted by the Minister or by any person authorised by him, and exclusive rights, under certain conditions, to take timber or products on specified areas of State forest or timber reserves may also be granted.

The Minister may grant exclusive rights, under certain conditions, to take timber or products on specified areas of State forest or timber reserves.

Every person conducting a sawmill for the sawing or treatment of timber must obtain a license, keep books and records, and make prescribed returns.

Royalty must be paid on all timber felled and on all products taken from any State forest, timber reserve, Crown lands, or lands held under any tenure from the Crown which require the payment of royalty; but

such royalty is not payable on timber exempted therefrom by terms of the license or by the regulations, or on timber required for use on any holding. Allowance may also be made for any timber which is not marketable.

Trees on any State forest, timber reserve, or Crown lands, with the exception of lands held under conditional lease granted before the passing of the Act, must not be ringbarked except under permission, with stated conditions.

The Minister, where practicable, must impose conditions for afforestation and reafforestation in all exclusive rights or licenses.

The Act makes provision for regulations on the following matters:—For granting licenses, &c., and prescribing the fees and royalties payable. Determining the periods and the conditions under which licenses, &c., may be granted. Providing for the protection and preservation of timber, and regulating the cutting, marking, and removing thereof. For inspecting, branding, and marking timber, and prescribing the kinds, sizes, and quantities which may be cut or removed. Determining the conditions under which fires may be lighted in State forests, and providing for the organisation of a system of education in scientific forestry.

Since the introduction of the Forestry Act, a Director of Forests has been appointed; stringent regulations have been framed to give practical effect to the Act; the Department has been reorganised; and the staff for supervisory and protective purposes has been materially strengthened.

The Act also provides for the classification of forest lands and for their proclamation as State forests, and first steps with this object are already in process.

As an aid to forest management, arrangements are being made for the enrolment of forest cadets, for the establishment of a training school and for a course of training, which will include a curriculum of educational and scientific subjects.

A large amount of regenerative work has already been done in connection with the Murray River and the inland forests; experimental works have been started in various parts of the coast and highlands to test the reforestative capacity of different classes of hardwood forest, and to ascertain the best methods of treatment; and stations have been selected for the promotion of afforestation by the establishment of State nurseries, the object being to utilise in this way, as far as possible, some of the waste lands of the State.

On the 30th June, 1911, the total area included in reserves for the preservation of timber was 7,660,496 acres, showing a decrease of 30,275 acres compared with the figures of the previous year.

FOREST NURSERIES, &C.

In connection with the scheme of afforestation and reafforestation, suitable sites for nurseries have been selected at Tuncurry, on the North Coast, and at Armidale, on the northern tableland, and the preliminary work of planting is in progress.

Experimental areas have been selected near Grafton, Bellingen, and Copernook.

There is a well-established State Forest Nursery at Gosford, the planted area comprising 42 acres.

The annual distribution of plants from Gosford was as follows:—

Plantations, 21,280; agricultural farms and public institutions, 5,030; transfers to Campbelltown State Nursery, 11,150; exchanges, 1,805. Total, 39,265.

Indigenous seed was exchanged during the year with interstate and foreign Departments of Forestry.

FOREST INDUSTRIES.

During the year ended 30th June, 1911, there were 630 sawmills at work, the employees numbered 4,826, and the value of plant and machinery was estimated at £470,081. The output of native timber from logs amounted to 142,561,000 superficial feet, valued at the mills at £891,111.

Forest industries employ a considerable proportion of the working population, and as the Department's plans are developed, the improvement and regeneration of the State forests will provide a wide field for employment.

Attention has recently been directed towards the employment of prison labour in connection with reforestation.

It is impossible to state accurately the annual value of production for forestry; but it has been calculated to represent, at the base of production, about £906,000 for 1910, the return from hardwood sleepers obtained for export and local use being about £121,000.

FORESTRY LICENSES AND PERMITS.

The following return shows the forestry licenses and permits current during the year 1910 :—

Description.	Amount of Fee.			Total Fees collected during 1910.
	Per Month.	Per Quarter.	Per Year.	
	s. d.	s. d.	s. d.	£
Timber License (subject to Royalty).	2 6	7 6	.....	6,620
Fuel License	5 0	10 0	40 0	
Products Licenses	2 6	7 6	.....
Grazing Permits	1 0	.....	.....
	(Subject to payment of agistment fees, as assessed by Forestry Officers.)			
Saw-mill License ... ..	.....	.....	20 0	683
	(When issued after 30th June in any year, 10s. for unexpired portion of the year.)			
Special License ... ..	.....	7 6	30 0	334
Occupation Permit	1 0	.....	.....
	(Subject to payment of rent to the Crown and compensation to the lessee or licensee (if any), assessed by the Minister.)			
Ringbarking Permit	(Prescribed fee, £2). Net amount received ...			349
				£ 7,986

TIMBER LICENSES.

The revenue collected by the State from Timber Licenses and from Royalty on Timber during each of the last ten years is given in the subjoined table :—

Year.	Timber Licenses, &c.	Royalty on Timber.	Total.	Year.	Timber Licenses, &c.	Royalty on Timber.	Total.
	£	£	£		£	£	£
1901	7,252	12,561	19,813	1906	9,199	38,981	48,180
1902	6,667	25,204	31,871	1907	9,955	45,775	55,730
1903	7,018	29,246	36,264	1908	10,546	46,583	57,129
1904	6,388	27,995	34,383	1909	10,486	46,755	57,241
1905	7,540	30,414	37,954	1910	10,877	70,960	81,837

The practice of forestry in Europe and America has shown that greater expenditure by the Government means vastly increased profits, and there certainly is reason for expecting increased profit from forest improvement in New South Wales, as timber grows more rapidly and to larger size in this State.

TIMBER PHYSICS.

The series of timber tests undertaken at the P. N. Russell Testing Laboratory, University of Sydney, under the direction of Professor W. H. Warren, M.I.C.E., has now been completed, and a final report on the results was published during the year.

The tests were carried out in accordance with the latest modern methods, and are of scientific and practical value. They proved the correctness of the opinion held by users of the timber of New South Wales as to its great strength and durability.

FISHERIES.

UNDER the Fisheries Act of 1902 the control of the fisheries of the State, previously administered by a Commission, was placed in the hands of a Board to supervise the industry and ensure observance of the regulations in regard to the dimensions of nets, the closing of tidal waters to net-fishing, and other such matters. Under an amending Act, in 1910, the Fisheries Board was dissolved, and its powers vested in a Minister of the Crown, assisted by an advisory Board of five persons, representing various interests. Every fisherman in tidal waters must apply for a license yearly, the fee being 5s., which is reduced to half that amount if the license is issued after the 30th June and before the 1st December. A license must be taken out for every fishing-boat, the fee being 5s., which likewise is reduced by one-half if granted after the 30th June and before the 1st December.

LICENSES.

The number of fishing-boat licenses issued during the year 1910 was 1,145, and of licenses granted to fishermen 2,324, the fees received for these 3,469 licenses amounting to £1,108. The class of boat used for fishing purposes in New South Wales is ill-suited, and very little improvement is likely to result to the industry if the present fishermen are left unaided with their primitive appliances, and unless others of a better class, provided with capital, are induced to take up the business.

OYSTER CULTURE.

For the purpose of oyster-culture, the Crown grants leases of tidal waters below the mean high-water mark for "average lands," "special lands," and "inferior lands." For "average lands" for terms not exceeding fifteen years, at yearly rentals to be determined by the Minister, for every 100 yards of frontage along an approximate high-water mark. For "special lands," any area of special value after being offered by auction or tender, subject to same conditions as leases of "average lands," except that they need not be measured along an approximate high-water mark. For "inferior lands," for terms not exceeding ten years, at yearly rentals to be determined by the Minister. No limit is placed as to the extent of water frontage to be leased.

During the year 1910, 360 applications for leases, aggregating 110,795 yards, were granted; and at the end of the year the existing leases numbered 2,225, and the length of the foreshore held was 650,689 yards. In addition, there were in existence deep-water leases to the extent of 87½ acres. The deposits paid with the applications for leases amounted to £744, while the rentals received during the year for leased areas were £5,166. This, it may be observed, is the maximum revenue received from this source.

During 1910, 17,149 bags of oysters were obtained from the tidal waters of the State. During 1899, the maximum output of 20,182 bags were taken; but from this year the annual take showed a general tendency to decrease, primarily on account of the spread of disease in some of the rivers. The smallest quantity of oysters taken—12,613 bags—was during 1904. In the last five years the production has improved, the output in 1910 being the largest since 1902.

PRODUCTION OF FISHERIES.

It is estimated that the value of production during 1910 of the fisheries of the State was about £202,000.

But despite the existence of an unlimited supply and a large local demand, the fishing industry has long been in an unsatisfactory condition, and fresh fish is scarce, while fish, fresh and preserved, to the value of £217,000 was imported during 1910.

Splendid fishing-grounds extend along the whole length of the coast, the natural features of which are peculiarly favourable to the existence of a very large supply of the best food fishes. In the waters of the numerous bays and estuaries, and in the lakes and lagoons communicating with the sea, are found shelter and sustenance, as well as excellent breeding-grounds. Several species of fish found on the coast are not migratory, and as a consequence may be procured nearly always in the market.

SOURCES OF FISH SUPPLY.

Of 158,633 baskets of fresh fish delivered to Sydney and Newcastle markets, far more than half came from five districts, viz.:—

Clarence River	...	24,330 baskets.	Botany Bay and George's	12,333 baskets.
Port Stephens	...	20,097 "	River.	
Cape Hawke	...	13,379 "	Lake Macquarie	...
				11,317 "

It is noticeable that all these supplies came from river estuaries and lakes, and that these localities are all, with the exception of Botany Bay and George's River, situated on the North Coast; and it is further noticeable from the detail figures that from Port Jackson and the waters northward as far as Tweed Heads came 116,210 baskets of fish out of the total of 158,633, leaving only 42,423 baskets from southern waters, including Botany Bay and George's River. But the present relative output is hardly a criterion as to the potentialities of northern and southern waters; and in this connection it may be of interest to note briefly the results of recent trawling investigations in New South Wales waters.

STEAM TRAWLER "ENDEAVOUR."

The fisheries investigation steam trawler, "Endeavour," was built for the Government of the Commonwealth at the New South Wales Government's Fitzroy Dock, at Cockatoo Island, Sydney, and became available for service early in 1909. Since that date various cruises have been made in New South Wales waters. Previously the Government of the State had undertaken some investigation and developmental work, and in 1898 an extensive investigation was arranged, the s.s. "Thetis" being equipped and placed in charge of an experienced North Sea fishing master. The outcome of the cruise was a considerable addition to the knowledge of Australian deep-sea fauna; but from a commercial point of view no marked results ensued. Subsequently, with the appointment of the Fisheries Board, further and more comprehensive investigations were undertaken as to the rates of growth; the life conditions and habits of various fishes; prevailing currents and their correlation to the spawning migration of fishes were studied; acclimatisation of species not native to Australian waters was undertaken; location of spawning grounds, &c. These investigations, carried on over a series of years, have resulted in the accumulation of data of considerable value.

The earliest cruises of the F.I.S. "Endeavour" were made along the South Coast of New South Wales, and the good results then secured were verified by further surveys and trawls. The outcome of the work undertaken, as relating to New South Wales, may be briefly summarised thus:—

Eden Division and Shoalhaven Bight.—Early trawls showed that prime fish in paying quantities were present, and bottom samples obtained by the "lead" invariably disclosed the presence of abundant fish food, and promised corresponding variety of fish. Subsequent investigation showed

that whereas the trawling grounds north of Solitary Rock are relatively poor, at Shoalhaven Bight and further south they are good. The northern limit of profitable trawling is thus set along the New South Wales coast; but the exact limit remains to be determined. Careful surveys in Disaster Bay have defined clear ground between the mainland and the continental shelf at Gabo, representing a trawlable area of approximately 270 square miles, which might be easily and profitably worked from Eden.

Northern New South Wales and Queensland (Solitary Island to Bowen)—South of Clarence River were found the most promising trawling grounds between Solitary Rocks and Bowen. The general result of four cruises undertaken indicated that though trawling might not prove extremely remunerative in northern waters, the abundance of reef fish of suitable size and quality demonstrated quite clearly that large supplies, particularly of schnapper, await utilisation. Conditions generally are favourable for a steady output, which might readily be marketed in Sydney, Brisbane, and other local centres, or preserved.

The data obtained, particularly regarding the eastern portion of Bass Strait and the South Coast, proves that trawling would be commercially successful if carried out on rational lines and allied with a system of *direct distribution* to the public at reasonable prices.

The practicability of commercial trawling, as indicated by the investigations outlined above, is now being demonstrated. The trawler used has a modern equipment, a carrying capacity of 380 tons, and between 2,000 and 3,000 cubic feet of cold storage. As a result of some fifteen hours' trawling, a catch weighing nearly 15 tons, and consisting chiefly of deep-sea flathead, schnapper, ling, whiting, John Dory, and red mullet, was taken from waters south of Sydney; and it is proposed to continue the industry on a scientific basis. The fish caught are cleaned immediately on taking, and placed in the cool chambers, ice not being required.

Under the Constitution, the Commonwealth has power to legislate in regard to "Fisheries in Australian waters beyond territorial limits," *i.e.*, beyond the 3-mile limit seaward. This really limits the Commonwealth control to deep-sea fishing, and leaves to the State full control of inshore fishing, which practically means all existing sources, as supplies have hitherto been drawn almost without exception from river estuaries and lakes.

Under the Federal Bounties Act of 1907, provision has been made to foster the fishing industry by subsidising the fish-preserving industry. Necessarily, the fish preserved must, to qualify for bounty, have been caught by white labour only in waters and under conditions prescribed. The bounty is fixed at $\frac{1}{2}$ d. per lb., and is payable for five years from 1st July, 1909, with a maximum aggregate of £10,000 in any one year. In the years 1907-8-9, in New South Wales there was one fish-preserving establishment. For 1910 there was none.

Sponge Culture.

In 1901 investigations were undertaken and collections of sponges made by the Fisheries Commission, with a view to establishing an industry. Some 630 specimens were examined by the Zoologist to the Australian Museum, in Sydney. Among these specimens seventy recorded species were identified, and ten different unrecorded species were noted. Of the known species, twelve were of the commercial class, and at least seven of these were of considerable actual commercial value. All the specimens collected were taken on some 400 miles of coast-line, between Bateman's Bay and Cape Hawke.

AGRICULTURE.

THE advantages derivable from a wide range of climate, and from fertile soils of varying characteristics, are such as render possible the cultivation in New South Wales of plants indigenous to cold, temperate, and even tropical regions.

Very few parts of the State are so barren or unwatered as to be thereby unsuitable for cultivation; consequently the only problem which confronts the settler, as a rule, is the choice of type of production to which he should devote his land, or whether he should combine two or more primary industries in developing his advantages.

The country which is essentially suitable for farming operations, is situated in the Eastern and the Central Land Divisions, the whole area in those divisions, with the exception of portions of the mountain chain, being capable of profitable agricultural development. The rainfall within this region is such as to admit of the successful cultivation of about 50,000,000 acres under ordinary conditions; and that area might be extended by the application of modern scientific methods relating to intense cultivation.

The rainfall of the Great Western Plains land division is so uncertain that no reliance can be placed on payable results accruing from agricultural pursuits; moreover, from the grazier's aspect as to cost, results, and markets, the pastoral industry presents superior attractions in this part of the State.

AREA UNDER CULTIVATION.

During the year ended 31st March, 1911, an area of 4,437,224 acres, including grassed lands, was under cultivation, of which the area under crops was 3,381,921 acres, and the area sown with grasses was 1,055,303 acres.

The progress of cultivation in quinquennial periods since 1881 is shown in the following table:—

Period (year ended 31st March).	Average area under—		Acres per inhabitant under—	
	Cultivation, including grasses.	Crops.	Cultivation.	Crops.
	acres.	acres.		
1881-85	746,017	662,085	0·93	0·82
1886-90	1,011,567	835,367	1·01	0·83
1891-95	1,398,199	1,048,554	1·19	0·90
1896-1900	2,252,649	1,894,857	1·74	1·47
1901-5	2,942,506	2,436,765	2·11	1·75
1906	3,465,611	2,838,081	2·36	1·93
1907	3,521,842	2,824,211	2·35	1·88
1908	3,306,217	2,570,137	2·15	1·67
1909	3,521,895	2,713,971	2·25	1·73
1910	4,063,801	3,174,864	2·55	1·99
1911	4,437,224	3,381,921	2·74	2·08

During the first thirty years covered by the table, exceedingly slow progress was made in agricultural development; even including grass lands, the average cultivation per inhabitant in 1891-5 was only a little over one acre, and the total area under crop did not reach a million acres till March, 1893. During the next six years expansion was much more rapid, and the recorded area increased to 2,000,000 acres. Since 1899 the

rate of growth has been much slower, until the year ended March, 1911, when the area amounted to 3,381,921 acres, an advance of 207,057 acres, or 6·5 per cent., on the previous year. The recent increase is due mainly to the favourable ploughing seasons, the high prices of agricultural produce, and the subdivision of large estates.

Comparison of the area actually under crop with the population shows that the area reached 1 acre per inhabitant in March, 1894. During the next five years the industry had so far developed that in 1898-9 the rate was 2 acres per head; but since that year, until quite recently, the cultivation per capita has remained practically stationary. The following statement shows, in decennial periods, the relative increases in population and in area under crop:—

	1870-80.	1880-90.	1890-1900.	1900-10.
Increase per cent. in population	50·0	50·0	21·6	20·2
Increase per cent. in area under crop	58·3	35·5	186·8	38·2

During the first ten years quoted above, the crop area increased more rapidly than the population. From 1880 to 1890 these conditions were reversed, and the population increased at a faster rate by 41 per cent. than the crop area; but during the next period, 1890-1900, cultivation increased no less than 187 per cent., or nearly nine times faster than the population. This increase was due mainly to the cultivation of large areas on holdings previously devoted to pastoral purposes. Since 1900 this phenomenal increase has not been maintained, and the decline in rapidity of development has been due partly to the check induced by adverse seasons, but more materially to the increased attention given to dairying; yet in the period 1900-1910 the area cropped increased 89 per cent. faster than population.

The following statement of the area under crops in the years ended 31st March, 1901, 1906, and 1911, shows the districts in which the greatest advances have been made:—

Division.	Area under Crops.			Index Numbers. (1901 = 100).	
	1901.	1906.	1911	1906.	1911.
Coastal—	acres.	acres.	acres.		
North Coast	109,568	109,704	96,980	100	89
Hunter and Manning	111,261	103,511	111,094	93	100
Cumberland	47,152	46,053	42,824	98	91
South Coast	55,209	51,009	56,327	92	102
Total	323,190	310,277	307,225	96	95
Tableland—					
Northern	60,186	68,362	78,286	114	130
Central	217,468	222,715	251,678	102	116
Southern	62,363	55,336	65,670	89	105
Total	340,017	346,413	395,634	102	116
Western Slopes—					
North	157,091	265,217	363,036	169	231
Central	259,588	412,578	518,670	159	200
South	416,465	442,855	630,223	106	151
Total	833,144	1,120,650	1,511,929	135	181
Western Plains—					
North	5,994	10,261	10,905	171	182
Central	165,032	287,437	269,900	174	164
Total	171,026	297,698	280,805	174	164
Riverina	756,855	745,183	871,195	98	115
Western Division	21,332	17,860	15,133	84	71
All Divisions	2,445,564	2,838,081	3,381,921	116	138

It is evident from these figures that, between 1901 and 1911, there has been a general increase throughout the State, with the exception of the coastal districts and Western Division.

The largest aggregate increase has taken place in Central Western Slope, and amounts to 259,082 acres since 1901. Taken as a whole, the Western Slopes show an advance of 678,785 acres. The districts which show the heaviest proportions of the total cultivation are the Riverina, with 25·8 per cent., and the Western Slopes, with an aggregate of 44·7 per cent. in its three divisions. The remaining 29·5 per cent. of the total cultivation is distributed over the Coastal, Tableland, Western Plains, and Western Division, less than 5 per cent. of the area under crop being in the last-named.

The great extension of cultivation since 1893 has been fostered by wheat-growing on large estates formerly devoted almost exclusively to grazing, by the added security against bad seasons afforded by wool and wheat-farming in conjunction, also by the adoption of the system of farming on shares, and, more recently, by the subdivision of large holdings for closer settlement. During the year 1910-11 the area cultivated on shares was 473,079 acres, of which 287,778 acres were in the Western Slopes Division and 136,922 acres in the Riverina.

In order that the figures relating to cultivation may be fully appreciated, the following table has been prepared, showing the area under crops, in conjunction with the total area, and the area in occupation, in each division during the year ended 31st March, 1911:—

Division.	Total area of Division.	Area under—			Proportion of area under crops to—	
		Occupation in holdings of 1 acre and over.	Crops.	Sown grasses.	Total area.	Area under occupation.
Coastal—	acres.	acres.	acres.	acres.	per cent.	per cent.
North Coast	5,409,370	3,855,006	96,980	702,466	1·8	2·5
Hunter and Manning	10,390,920	6,022,992	111,094	126,756	1·1	1·8
Cumberland	1,070,989	557,351	42,824	3,221	4·0	7·7
South Coast	5,484,122	2,524,658	56,327	182,695	1·0	2·2
	22,355,401	12,960,007	307,225	1,015,138	1·4	2·4
Tableland—						
Northern	8,928,487	7,613,159	78,286	13,599	0·9	1·0
Central	8,989,259	6,330,194	251,678	5,962	2·8	4·0
Southern	7,913,500	6,646,659	65,670	3,478	0·9	1·0
	25,831,246	20,590,012	395,634	23,039	1·5	1·9
Western Slopes—						
North	9,813,555	8,651,127	363,036	4,274	3·7	4·2
Central	6,252,567	5,113,446	518,670	368	8·3	10·1
South	8,185,759	7,220,219	630,223	5,265	7·7	8·7
	24,251,881	20,984,792	1,511,929	9,907	6·2	7·2
Western Plains—						
North	10,030,901	7,990,672	10,905	15	0·1	0·1
Central	16,029,880	15,010,740	269,900	1,719	1·7	1·8
	26,060,781	23,001,412	280,805	1,734	1·1	1·2
Riverina	19,767,073	18,727,421	871,195	5,418	4·4	4·7
Western Division	80,368,498	78,175,720	15,133	67	...	...
All Divisions	198,634,880	174,439,364	3,381,921	1,055,303	1·7	1·9

Only about 1·7 per cent. of the total area of New South Wales is actually devoted to the growth of agricultural produce; and if the small extent of land upon which grasses have been sown for dairy-farming purposes be added to the area under crops, the proportion reaches only 2·2 per cent., and represents about 2·7 acres per head of population. The

proportion of the cultivated area on alienated holdings is only 5·9 per cent. of the total area of alienated rural lands in holdings of 1 acre and over. Of the area in occupation, 52,174,454 acres are alienated and 122,264,910 acres are leased from the Crown.

Purely agricultural settlements are confined to limited areas in the alluvial lands of the lower valleys of the coastal rivers, and to parts of the southern and central divisions of the tableland; and the cultivation of crops is conducted, to a large extent, conjointly with grazing operations. Tenant occupancy, so general in the United Kingdom, is but little known in New South Wales; of the total area under crop, 2,818,554 acres, or 83·3 per cent., were cultivated by owners, and 563,367 acres, being 16·7 per cent., were cultivated by tenant occupiers, including Crown land lessees.

In addition to the area shown as cultivated and under sown grasses, 61,765,097 acres were ringbarked and partly cleared, and 1,663,636 acres were ready for cultivation on alienated holdings, comprising 1,180,070 acres which had been cropped previously, 313,214 acres of new land cleared and prepared for ploughing, and 170,352 acres in fallow.

Cultivation is not confined to particular districts, but is carried on in all parts of the State. Some of the best lands for producing cereals are in the hands of the pastoralists, so that farmers have not always been settled on the kind of country best suited for the cultivation of their crops.

The county of Cumberland, which contains the densest population, has a large area cultivated in proportion to area under occupation; but generally the Western Slopes show the largest relative areas under cultivation, followed in order by the Riverina and Central Tableland. In the North-western Plain and the Western Division there is practically no cultivation.

The largest proportion of the area under crops is devoted to the cultivation of wheat, which in 1910-11 accounted for 62·9 per cent. of the total; the area for hay was 18·9 per cent., maize 6·3 per cent., for green food 5·3 per cent., and oats 2·3 per cent. The following statement shows the cultivated area for each of the principal crops, at decennial intervals since 1881, and the relative importance of each crop:—

Crop.	Area.				Proportion per cent.			
	1881.	1891.	1901.	1911.	1881.	1891.	1901.	1911.
	acres.	acres.	acres.	acres.				
Wheat ...	253,137	333,233	1,530,609	2,128,826	40·2	39·1	62·6	62·9
Maize ...	127,196	191,152	206,051	213,217	20·2	22·4	8·4	6·3
Barley ...	8,056	4,937	9,435	7,082	1·3	·6	·4	·2
Oats ...	17,922	14,102	29,383	77,991	2·9	1·6	1·2	2·3
Hay ...	131,153	175,242	466,236	638,577	20·9	20·6	19·1	18·9
Green food ...	21,383	37,473	78,144	179,382	3·4	4·4	3·2	5·3
Potatoes ...	19,095	19,406	29,408	44,452	3·0	2·3	1·2	1·3
Sugar-cane ...	10,971	20,446	22,114	13,763	1·7	2·4	·9	·4
Vines ...	4,800	8,044	8,441	8,321	0·8	·9	·3	·2
Orchards ...	33,643	33,643	46,234	47,354	3·9	3·9	1·9	1·4
Market-gardens ...	24,565	5,098	7,764	9,813	·6	·3	·3	·3
Other crops ...	10,902	9,928	12,948	17,239	1·7	1·2	·5	·5
Total ...	629,180	852,704	2,446,767	3,386,017	100	100	100	100

The figures for the years 1901 and 1911 include the areas double-cropped, viz., 1,203 acres and 4,096 acres respectively.

The area devoted to wheat has always exceeded that given to other crops, and from the year 1881 the proportion, though fluctuating, has

remained high; it now stands at more than three-fifths of the whole area under cultivation. During the same time the proportion under maize has decreased from 20 per cent. to 6·3 per cent.; other crops have not varied materially.

VALUE OF PRODUCTION.

The average value of the principal crops, with the proportion of each to the total value, during the last three years, is shown in the following table; the values are not the Sydney market quotations, but are based on prices realised on the farm:—

Crop.	Value.			Proportion per cent.		
	1909.	1910.	1911.	1909.	1910.	1911.
	£	£	£			
Wheat	2,774,000	5,111,990	4,303,310	33·4	46·9	45·3
Maize	954,700	798,560	791,050	11·5	7·3	8·3
Barley	34,240	46,440	13,370	·4	·4	·1
Oats	111,910	196,660	177,360	1·3	1·8	1·9
Hay and straw	2,630,760	2,782,310	1,915,290	31·6	25·5	20·2
Green food... ..	515,900	422,410	358,800	6·2	3·9	3·8
Potatoes	275,340	400,570	658,030	3·3	3·7	6·9
Sugar-cane... ..	118,480	126,050	156,500	1·4	1·2	1·7
Grapes	50,130	61,450	56,350	·6	·6	·6
Wine and brandy... ..	67,330	64,810	58,880	·8	·6	·6
Oranges and lemons	129,610	196,820	199,300	1·6	1·8	2·1
Orchards	231,370	233,050	272,290	2·8	2·1	2·9
Market-gardens	298,740	311,580	333,690	3·6	2·8	3·5
Other crops	126,390	155,620	198,840	1·5	1·4	2·1
Total	8,318,900	10,908,320	9,493,060	100	100	100

The value of agricultural production in the year ended March, 1911, was less than the value in the previous year, on account of the lower prices of products; but, with this exception, it was the highest on record.

It is apparent that the agricultural wealth of New South Wales at present depends mainly on the return from wheat and hay, the value of these crops in 1911 being £6,218,600, or 65·5 per cent. of the total. The return of wheat for the year ended March, 1911, shows a total crop of 27,913,547 bushels, valued at £4,303,310. The value of maize is next in importance, but at a considerably lower level; the value of potatoes ranks third; the returns from sugar-cane, vines, green food, orchards, and gardens are comparatively of much smaller value.

The next statement shows the areas cultivated and the value of the production from agriculture, as well as the average value per acre over five-year periods since 1881:—

Period. (Year ended 31st March.)	Area Cultivated.	Value of Production.	Value per acre.
	acres.	£	£ s. d.
1881—1885	3,310,427	17,971,776	5 8 7
1886—1890	4,176,834	19,229,839	4 12 1
1891—1895	5,242,770	18,940,086	3 12 3
1896—1900	9,474,285	26,003,897	2 14 11
1901—1905	12,183,823	30,827,138	2 10 7
1906	2,838,081	6,543,050	2 6 1
1907	2,824,211	7,517,550	2 13 3
1908	2,570,137	6,587,990	2 11 3
1909	2,713,971	8,318,900	3 1 3
1910	3,174,864	10,908,320	3 8 9
1911	3,381,921	9,493,060	2 16 2

The highest relative value received in any year was in 1881-2, when the return was £4,215,268, or £7 4s. 5d. per acre. Decrease in prices, not want of productiveness, caused the decline in value after 1882. The fall in prices, especially of wheat, was very rapid down to 1896; for the next three years there was a very material increase; in 1900 they fell again to the 1896 level; but in 1902 there was a general increase; while towards the close of 1903, and almost up to the close of 1903-4, the effects of the adverse season were acutely felt, and prices rose to double those of the previous year. At the end of the 1903-4 season, when heavy crops began to arrive, prices again fell, but they recovered during the following year. The value of production per acre rose steadily from the year ended March, 1905, to 1910, when it was the highest since 1893.

WHEAT.

In New South Wales, as in most other countries, the area devoted to wheat far exceeds that of any other cereal; and it is in this form of cultivation that the returns of the State show the greatest expansion. In the year ended March, 1911, the area under wheat for grain was 2,128,826 acres, which was 62·9 per cent. of the whole area under cultivation. The year 1897-8 may be said to mark the beginning of the present era of wheat-growing in the State, for it was in that year that the production for the first time exceeded the consumption, and left a surplus available for export. The following statement shows the area under wheat in the various districts in the years ended March, 1908 and 1911 in comparison with 1898:—

Division.	Area under Wheat for Grain.			Proportion in each District.		
	1898.	1908.	1911.	1898.	1908.	1911.
	acres.	acres.	acres.	per cent.	per cent.	per cent.
Coastal	16,192	4,940	5,610	1·6	·4	·3
Tableland—						
Northern	20,686	6,362	6,892	2·1	·4	·3
Central	80,318	62,587	91,428	8·1	4·5	4·3
Southern	22,421	4,990	9,467	2·2	·4	·4
	123,425	73,939	107,787	12·4	5·3	5·0
Western Slopes—						
North	59,330	172,907	235,621	6·0	12·4	11·1
Central	102,136	273,025	392,782	10·3	19·6	18·4
South	198,268	274,950	479,728	19·9	19·9	22·5
	359,734	720,882	1,108,131	36·2	51·9	52·0
Western Plains ...	31,589	142,979	212,620	3·2	10·3	10·0
Riverina	460,474	445,537	692,873	46·4	32·0	32·6
Western Division...	1,936	1,894	1,805	·2	·1	·1
All Divisions ...	993,350	1,390,171	2,128,826	100·0	100·0	100·0

As might be expected, the proportions of land under wheat in each district generally follow the same order as shown in a previous table for the total area under cultivation. Between 1898 and 1911, however, the proportions in each district have changed considerably. The tablelands, for instance, now include only 5 per cent. of the whole area, as against 12·4 per cent. in 1898, and the Riverina 32·6 per cent., as against 46·4 per cent., while the Western Slopes have increased from 36·2 per cent. to 52 per cent., and the Western Plains from 3·2 per cent. to 10 per cent. The largest proportionate increase in area has been in the Western Plains, where it is now more than six times the area of 1898; closely following is the North-western Slope; then Central-western and the South-western Slopes. On the Northern and Southern Tablelands wheat-growing is declining in favour. The great bulk of the wheat is grown on the Western Slopes and in the eastern part of the Riverina, these two districts together contributing nearly 85 per cent. of the whole. On the coast, in the Western Division, and in the Central-western Plain, with the exception of the eastern fringe, the wheat area and the yield are very small. The expansion in the Western Plains is attributable to the increase around Narromine.

The next statement shows the yield in each of the above-named districts in the same years:—

Division.	Yield of Grain.			Average yield per acre.			
	1898.	1908.	1911.	1898-1908	1898.	1908.	1911.
	bushels.	bushels.	bushels.	bushels	bushels	bushels	bushels
Coastal ...	329,274	23,996	67,192	12·4	20·3	4·9	12·0
Tableland—							
Northern ...	300,215	90,728	102,421	13·8	14·5	14·3	14·9
Central ...	933,296	479,404	1,061,237	11·6	11·6	7·7	11·6
Southern ...	242,556	42,176	161,068	11·9	10·8	8·5	17·0
	1,476,067	612,308	1,324,726	11·9	12·0	8·3	12·3
Western Slopes—							
North ...	1,208,859	1,070,344	1,837,161	12·1	20·4	6·2	7·8
Central ...	1,398,967	2,033,284	4,192,047	11·1	13·7	7·4	10·7
South ...	1,849,521	2,482,004	7,599,862	10·1	9·3	9·0	15·8
	4,457,347	5,585,632	13,629,070	10·9	12·4	7·7	12·3
Western Plains ...	563,066	611,852	1,819,302	8·4	17·8	4·3	8·6
Riverina ...	3,725,421	2,306,188	11,054,569	8·3	8·1	5·2	16·0
Western Division	8,936	15,908	18,688	5·5	4·6	8·4	10·4
All Divisions...	10,560,111	9,155,884	27,913,547	9·8	10·6	6·6	13·1

The most prolific district usually is the North-western Slope, which shows the highest average yield over the whole period covered by the table, except the Coastal Division and the Northern Tableland, where the aggregate yields are not large. The Riverina and South-western Slope, which yield the largest aggregate crops, control the general average for the State.

To further illustrate the relative extent of the acreage under wheat for grain, and the resultant yield for 1908 and 1911, the following table shows the index numbers of those years in relation to 1898, which is taken as a basis, and is equal to 100:—

Division.	Wheat Acreage		Yield.	
	1908.	1911.	1908.	1911.
Coastal	30·5	34·6	7·3	20·4
Tableland—				
Northern	30·7	33·3	30·2	34·1
Central... ..	77·9	113·8	51·4	113·7
Southern	22·6	42·2	17·3	66·4
Total, Tableland ...	59·9	57·3	41·5	89·7
Western Slopes—				
North	291·4	397·1	88·5	151·9
Central... ..	267·3	384·6	145·3	299·7
South	138·7	242·0	134·2	411·0
Total, Western Slopes	200·4	308·0	125·3	305·8
Western Plains	452·1	673·1	108·8	323·1
Riverina	96·8	150·5	101·9	296·7
Western Division ...	97·8	93·2	178·0	209·1
All Divisions ..	139·9	214·3	86·7	264·3

A great proportion of the immense area of the State, hitherto devoted exclusively to pastoral pursuits, consists of land which could be profitably utilised for agriculture, much of it being more suitable for the cultivation of wheat than some of the land now under crop; and the returns show that wheat-growing, which was formerly confined to small farmers, is now engaging the attention of a number of the large landholders, who cultivate areas of thousands of acres in extent, and use the most modern and effective implements and machinery for ploughing, sowing, and harvesting.

A considerable portion of the new area which is being brought under wheat in New South Wales is cultivated on the shares system, especially in the southern portion of the State. Under this system, the owner leases his land to the agriculturist for a period, for the purpose of wheat-growing only, the farmer tenant possessing the right of running upon the estate the horses necessary for working the farm, and the owner the right of depasturing his stock when the land is not in actual cultivation. It is usual for the owner to provide the seed, and the tenant the labour; and up to a specified yield, the parties to the agreement take equal shares of the produce, any excess going to the farmer as a bonus. The system, however, is subject to local arrangements. The number of acres farmed on the shares system during 1910-11 was 473,079, as compared with 364,579 for the preceding year.

The progress of wheat-growing for many years was slow and irregular. Prior to 1867 the area under crop had remained almost stationary at a little more than 125,000 acres; but in 1867 the acreage increased to 175,000. Eleven years later, the area reaped for grain was practically the same, although during the intervening period it had fluctuated somewhat. Then more land was laid under the cereal, and in 1879 the area increased to 233,252 acres. In 1891, twelve years later, the acreage stood at 333,233 acres, although, during the interval, it had reached as high as 419,758 acres. From 1893 onwards progress was more regular. A great impetus was given to the industry in 1897, when the area increased to 866,112 acres; in 1901 it had advanced to 1,530,609 acres, and in 1906 to 1,939,447 acres. During the next three years the area decreased.

But in 1911 it rose to 2,128,826 acres, the highest yet recorded. The following statement shows the area under wheat for grain at intervals since 1876, together with the total production and average yield per acre:—

Year ended 31st March.	Area under Wheat for Grain.	Yield.		Year ended 31st March.	Area under Wheat for Grain.	Yield.	
		Total	Average per acre.			Total	Average per acre.
	acres.	bushels.	bushels.		acres.	bushels.	bushels.
1876	133,609	1,958,640	14·66	1907	1,866,253	21,817,938	11·69
1881	253,137	3,717,355	14·69	1908	1,390,171	9,155,884	6·59
1886	264,867	2,733,133	10·45	1909	1,394,056	15,483,276	11·11
1891	333,233	3,649,216	10·95	1910	1,990,180	28,532,029	14·34
1896	596,684	5,185,312	8·71	1911	2,128,826	27,913,547	13·11
1901	1,530,609	16,173,771	10·56				
1902	1,392,070	14,808,705	10·64				
1903	1,279,760	1,585,097	1·24	Average for 30 years ended 1911			10·94
1904	1,561,111	27,334,141	17·51	" 10 years "		1891	13·30
1905	1,775,955	16,464,415	9·27	" " "		1901	10·02
1906	1,939,447	20,737,200	10·69	" " "		1911	11·00

Despite the vicissitudes of the climate, it will be seen from the above table that lack of capacity to produce a payable average has not been the cause of the tardiness in development of wheat cultivation. During the last thirty years, the mean annual average yield has been 10·94 bushels to the acre, and the average for 1911 is 20 per cent. above this figure. The highest averages recorded have been 17·51 in 1904, and 17·37 in 1887. The lowest was 1·24 bushels in the disastrous year of 1903. During the whole period there were only seven seasons when the yield fell below 10 bushels per acre, the failures in each case being due to drought conditions.

In spite of the lower averages of certain years, it may be said that from equal qualities of soil a better yield is now obtained than was realised twenty years ago, a result due largely to extension of agricultural education, leading to improved farming, the use of fertilizers, and of more economical harvesting appliances; also to the fact that rust, smut, and other forms of disease in wheat have been less frequent and less general in recent years.

PRINCIPAL WHEAT-GROWING COUNTRIES.

A comparison of the production of this cereal in the principal wheat-growing countries is supplied in the following table:—

State.	Production.	Country.	Production.
	bushels.		bushels.
New South Wales	27,913,547	Russia	776,619,000
Victoria	34,813,019	United States	695,443,000
Queensland	1,022,373	British India	337,109,000
South Australia	24,344,740	France	263,922,000
Western Australia	5,897,540	Austria-Hungary	259,272,000
Tasmania	1,120,744	Italy	153,339,000
Total, Australia	95,111,963	Canada	149,990,000
		Germany	142,509,000
		Spain	137,449,000
		Argentina	131,012,000
New Zealand	8,290,221	Roumania	110,828,000
		Turkey	64,000,000
		Bulgaria	61,126,000
		United Kingdom	58,235,000
		Algeria	39,375,000
		Japanese Empire	23,703,000
		Chile	19,743,000

Estimates of the wheat crop of New South Wales are made at this Bureau of Statistics, and are published periodically during each season.

AREA SUITABLE FOR WHEAT-GROWING.

The area suitable for wheat-growing is roughly defined as that part of the State which has, theoretically, sufficient rainfall—(a) to admit of ploughing operations being carried out at the right time of the year; (b) to cover the growing period of the wheat plant; and (c) to fill the grain during the months of September and October, or, in the case of districts where the rainfall in these months is light, to counteract the deficiency by the increased falls in the earlier or later months.

September and October are regarded generally as the most critical months as regards rainfall—being the time for the filling of the grain. Heavy soils require more rain than light soils, especially if the latter possess retentive subsoils. The nature of the soil, and considerations of elevation, temperature, evaporation, &c., have an important bearing on the rainfall needed for wheat and general culture.

The average rainfall gradually diminishes towards the western limits of the State, the figures ranging from a mean of about 50 inches on the seaboard to 10 inches on the western boundary.

In the early days of the industry wheat-growing was confined to the coastal districts, but its cultivation in these areas has been practically abandoned on account of the prevalence of rust, combined with the discovery that the drier districts are more suitable because the crop can be more easily and more cheaply grown.

In some of the northern districts much of the land is unsuitable for wheat-growing, as it consists of stony, hilly country, too rough for cultivation, and of black-soil plains, which bake and crack, and present mechanical difficulties in tillage. The rich soils of river flats must also be omitted from good wheat-growing areas, as such land has a tendency to produce excessive straw growth, although excellent hay can be grown in those localities.

Until recently land with an average rainfall of less than 20 inches has also been excluded from the area which is considered safe for profitable wheat-growing. With these exceptions—the coastal districts, unsuitable northern districts, and the areas of less than 20 inches average rainfall—it has been estimated that the area contained within the wheat belt covers from 20 to 25 millions acres.

It has, however, been found possible to produce high yields with a much lower annual rainfall, and the extension of the wheat belt by the application of scientific methods is now a matter of active interest to all connected with this great national industry. The South Australian farmers place the annual rainfall limit at 16 inches; but in that State the fall in many districts, though low, is more regular and more opportune than in New South Wales, though much is undoubtedly due to the more general application of advanced methods of cultivation in South Australia. If it is proved that wheat can be profitably grown in New South Wales in areas with an annual fall of 16 inches, another 10,000,000 acres will be added to the wheat belt.

In this regard the Commonwealth Meteorologist has recently published a map showing the average rainfall for the wheat-growing period, April to October inclusive, but, in determining the area of profitable wheat-farming by means of the rainfall, one of the most important considerations is the seasonal distribution. Wheat has been cultivated successfully in parts of Australia with an average of 10 inches where the falls have been favourable as regards distribution. Assuming, therefore, that this quantity is sufficient for profitable wheat production, provided that it falls in the growing months, an investigation reveals that the 10-inch isohyetal in this State starts from Kanopia on the Queensland

border, and in passing southwards cuts the railway line midway between Walgett and Burren Junction, after crossing the Castlereagh River, passes between Coonamble and Quambone; thence trends a few miles to the east of Warren, through Nevertire in the direction of Nymagee, from there it curves southwards to Euabalong on the Lachlan River, from there to the Murrumbidgee River, which it crosses between Carrathool and Whitton, and terminates on the Murray River at a point 50 miles to the east of Moama.

South of the Murrumbidgee from 65 to 70 per cent. of the annual average falls between the beginning of April and the end of October; in the central wheat areas, i.e., the central western slopes and parts of the western plains, the percentage of the annual means drops to between 50 and 60, and in the northern wheat country to a range from 45 to 55 only.

Undoubtedly the area in which wheat may be grown profitably has been extended considerably during the past five years, and the adoption of modern methods of culture by the farmers generally would permit of still greater expansion. Especially is this the case throughout the area where the average precipitation is not less than 10 inches during the growing period.

To secure satisfactory results, however, the distribution of the rainfall is very important. Heavy falls early in the season may induce a too vigorous growth, which would require correspondingly heavy rains in the spring or early summer. On the other hand, comparatively light showers, in addition to encouraging surface-rooting, would result in a larger proportion of evaporation than if the falls amounted to about 1 inch at a time.

The conservation of moisture in the subsoil by fallowing and proper treatment of the fallows, may carry over an equivalent of from 5 to 8 or 10 inches of rain to supplement the falls during the growing season, and it will be conceded that the risk of failure, in the drier western districts especially, has been greatly diminished, if not entirely eliminated, by these means.

With regard to the wheat crop of the present year, no season has ever furnished such an object lesson as to the benefits to be derived from a proper system of fallowing and intelligent working of the land. From almost every district reports have been received showing that, notwithstanding the dry conditions prevailing during practically the whole period of growth, many of the crops on fallowed and properly cultivated land have yielded up to 30 bushels per acre, and some have averaged as high as 36 bushels. The general average yield suffers by reason of the large proportion of poor crops on stubble land, and the knowledge of this fact should stimulate farmers generally to adopt more scientific methods of cultivation when it has been proved so conclusively by practical experience that fallowed and properly-worked land will give far better results than a much larger area of stubble land.

DRY-FARMING.

The term "dry-farming," in its general significance, is applied to any method founded on scientific principles for the production of crops without irrigation in arid or semi-arid districts.

Dry-farming methods have been practised for many years in New South Wales, Victoria, and South Australia. The last-mentioned State is specially noted for the amount of grain produced in districts of scanty rainfall; in the mallee districts of Victoria, with an annual rainfall of 12 to 16 inches, wheat-growing has been conducted with most successful results; and the prosperous condition of many towns in the dry western

areas furnishes undoubted evidence of the success of dry-farming in New South Wales. It must be admitted that the advanced methods have not been generally adopted in this State, but conditions are steadily improving, and the problem of effective utilisation of the dry districts is now attracting considerable attention in agricultural and scientific circles.

In July, 1910, a conference was arranged by the Department of Agriculture, in conjunction with the Farmers and Settlers' Association, to which prominent farmers from the wheat-growing districts of this State were invited to meet the experts of the Department and to discuss the subject of wheat-growing with special reference to dry-farming. The report of the conference, which has been issued as a Departmental Bulletin, contains discussions on the three main factors for successful farming in dry districts, viz., the production of suitable varieties of wheat, the conservation of fertility by the proper use of fertilisers and rotation of crops, and the conservation of soil moisture. The fixing of the wheat standard and transportation methods were also dealt with, and many interesting comparisons with conditions in other wheat-producing countries were placed before the conference.

Present indications with regard to the western portion of the State are that the best results will be obtained by combining wheat-culture with sheep-raising. But the Department emphasises a warning to intending growers that successful wheat culture under arid conditions requires a thorough knowledge, and a strenuous application of the most-modern methods. Experiments in dry-farming were conducted for a number of years at Coolabah Experiment Farm, and since 1909 a more accessible site, the Nyngan Demonstration Farm. The results of the experience gained and practical advice are readily available to interested persons on application to the Department of Agriculture.

At the instance of the Minister for Agriculture of South Australia, the first Interstate Dry-farming Conference was held at Adelaide in March, 1911. Representatives of New South Wales, Victoria, Queensland, and South Australia attended, and the following resolutions were passed:—

1. The appointment to be recommended of an Agricultural Board of Advice to consist of three official representatives of each Australian State.
2. Such Board to decide on a common basis of scientific investigation and a common plan of experimentation
3. The data collected by the Board and the results of experiments to be published by the respective Governments.
4. The above resolutions to be conveyed to the State Governments, and each to be urged to make necessary arrangements to carry them into effect.

The next Interstate Conference of Dry-farming is to be held in New South Wales in October, 1912.

VARIETIES OF WHEAT.

Since 1897, Government agricultural experts have been endeavouring to determine the varieties of wheat most suitable for the various districts, and to secure new types which would return the best milling results under local conditions. It is gratifying to record that their efforts have been attended with marked success.

In connection with this branch of agricultural science the name of the late William J. Farrer, Wheat Experimentalist of the Department of Agriculture of New South Wales has become world-famous. His efforts were directed towards the production of new varieties of greater milling value and more resistant to rust than the old. Farrer wheats, which rank amongst

the most prolific grain varieties, are largely cultivated throughout the State; and it has been proved, as a result of his work and that of his successors, that Australia can produce strong white wheat equal in flour production to the old varieties, and equal in strength to the famed standard Manitoba wheat which had hitherto been imported for blending with Australian soft wheats. This importation has been abandoned in this State, and it is the intention of the Sydney Chamber of Commerce to make a special standard under the name of "New South Wales Strong White." This indicates that New South Wales is likely to become an exporter rather than an importer of strong wheat.

INCREASE IN THE WHEAT YIELD.

It has been shown that the area under wheat is 2,128,826 acres, which is a very insignificant portion of the total area available; and even this small area is not worked as profitably as it might be. Compared with the principal wheat-growing countries of the world, an average yield of 13 bushels per acre is very small, as will be seen from the table below. The averages shown are based on the latest available returns:—

Country.	Average yield per acre.	Country.	Average yield per acre.
	bushels.		bushels.
United Kingdom	30·34	Italy	16·33
Germany	30·50	Russia	11·94
France	21·19	Argentina	10·72
Hungary	14·36	Canada (excluding British Colum- bia)	21·51
United States	15·30		
India	10·88		

A bare statement of average is, however, not entirely conclusive, as the relative cost of production should also be taken into consideration.

Moreover, in the older countries, the efforts of farmers are more concentrated, and more intense cultivation is necessary. In New South Wales, wherever agriculturists have confined their operations to a restricted area, and have made systematic efforts to till the soil completely, their returns have been much greater than those obtained by imperfect cultivation of areas which are beyond the capacity of the holder's teams and implements.

The rough-and-ready methods of farming practised on many of the outlying districts are steadily improving, and it is reasonable to expect that the yield will be considerably increased. The lack of system in farming is almost necessarily prevalent amongst pioneers in new countries. In many instances the settlers have begun with insufficient capital and with very little practical knowledge; and there are probably very few places where persons without capital could have succeeded so well as in this State.

The possibilities of New South Wales are great; and if only a quarter of the area favourable for growing wheat were cultivated on scientific lines, there would be a much greater surplus available for export, after satisfying all the demands of the local population. There is a very large market for breadstuffs in the United Kingdom, the average annual import during the last five years having been 212 million bushels, of which, on the average, slightly more than 4 million bushels per annum have been received from this State. Were the farmers to grow the wheats most in demand in Great Britain, there should be very little of the year's crop unsold, and little risk of the local price falling so low as to be unprofitable. There is also an increasing demand for Australian wheat in the markets of the East.

In the British markets, during 1910, New South Wales wheat was quoted at 37s. 2d. per quarter. This price was about equal to that of the United States grain, or 5d. per quarter higher than the Canadian, 2s. 2d. higher than Argentine, and 5s. 6d. higher than English.

PRICES OF WHEAT.

The price of wheat is subject to constant fluctuation, as shown in the following table, which gives the average rates ruling in the Sydney market in the months of February and March of each year since 1865. These figures exhibit clearly the tendency to a gradual reduction in the value of the cereal down to 1895, when the price was the lowest of the series. In 1896, however, owing to a decrease in the world's supplies, the price rose considerably, and led to an extension of cultivation in Australasia. Up to a few years ago, with a deficiency in the local production, the price in Sydney was generally governed by the rates obtained in the neighbouring Australian markets where a surplus was produced. These, again, are now determined by the figures realised in London, which are usually equal to those ruling in Sydney, plus freight and charges. The prices in the following table are for an imperial bushel, and, being for new wheat, are slightly below the average for the year:—

Year.	February.	March.	Year.	February.	March.	Year.	February.	March.
	per bushel.	per bushel.		per bushel.	per bushel.		per bushel.	per bushel.
	s. d.	s. d.		s. d.	s. d.		s. d.	s. d.
1865	9 6	9 7½	1881	4 1	4 3	1897	4 8	4 6½
1866	8 4½	8 0	1882	5 5	5 6	1898	4 0	4 0
1867	4 3	4 4	1883	5 1½	5 2	1899	2 7½	2 9
1868	5 9	5 9	1884	4 3	4 3	1900	2 9	2 8
1869	4 9	4 10	1885	3 10½	3 7½	1901	2 7	2 7
1870	5 0	5 1½	1886	4 3½	4 5	1902	3 2	3 2½
1871	5 7½	5 9	1887	3 10	3 11	1903	.....	.....
1872	5 0½	5 3	1888	3 6	3 6½	1904	3 0½	3 0½
1873	5 1	5 8½	1889	4 9	5 3	1905	3 4½	3 3½
1874	6 9	6 1½	1890	3 6	3 6	1906	3 1½	3 2½
1875	4 7½	4 6	1891	3 7½	3 10	1907	3 0½	3 1½
1876	5 1½	5 6	1892	4 9	4 9	1908	4 4	4 5½
1877	6 1½	6 6	1893	3 6½	3 6	1909	4 0½	4 6½
1878	6 1½	5 7½	1894	2 11	2 8	1910	4 1½	4 1
1879	5 0	4 9½	1895	2 7	2 7	1911	3 7½	3 5
1880	4 8	4 9	1896	4 4½	4 5			

As to recent years prices did not vary greatly in 1899, 1900, and 1901. There were no quotations in 1903, owing to the almost universal failure of the 1902-3 crop. In 1908 and 1909 the prices were higher than in any year since 1897. In 1910 they were lower than in 1909, but otherwise were better than in any year since 1898. In 1911 the prices were much lower than those of the previous three years.

COST OF GROWING AND EXPORTING WHEAT.

The cost of raising wheat depends upon the size of the holding, as a large farm with first-class agricultural appliances can be worked at a very much lower proportionate cost than a small area. An estimate of the cost of growing wheat should include rent, or interest on purchase-money of land, and carriage to the market. Careful inquiries show that in New South Wales, taking into account the producing factors, such as the proportion of lands variously prepared and sown, the proportion of crops harvested by different methods, average railway and other freights, but excluding interest on capital, rent, &c., the cost of landing wheat in Sydney may be assumed at 1s. 7d. to 2s. per bushel with a 10-bushel crop; and with the increased use of improved machinery, the average cost is likely to be much reduced.

As estimated for wheat farms on large areas with a minimum expenditure per acre, the average cost includes initial expenses for seed, for ploughing, harrowing, sowing, rolling, &c.; then the cost of gathering the crop, stripping, winnowing, bagging, &c., after which comes the expenditure for transporting the crop from the farm to the market, including road haulage and train transport. These initial charges would naturally vary with conditions, with the size of the farm, the type of machinery, and distance from market, but for a 10-bushel crop might be approximately assessed at £1 5s. to £1 10s. per acre.

But apart from these initial charges is to be considered the cost of placing the product on the London market, for since wheat is a world product with a world market, of which London is the pivot, this cost affects selling prices. It includes charges for freight, transshipment, insurance, selling charges, and varies also with the type of vessel and other conditions, but always assists to raise the cost by another 1s. per bushel, approximately.

The Bureau of Statistics of the United States Department of Agriculture has estimated that the cost of producing wheat in that country in 1909, exclusive of rent, was 2s. per bushel, or 32s. 8d. per acre for an average crop of about 17 bushels per acre.

GRADING, HANDLING, AND MARKETING WHEAT.

The development of the wheat industry is largely dependent upon the facilities for economical transportation to the world markets, and at the present time, when combined efforts are being made by scientists and practical farmers to extend the cultivation and improve the quality of the wheat, the co-operation of the commercial and transport agencies by the introduction of improved methods of grain handling is necessary for the success of the industry.

Australian wheat is marketed on the basis of a single standard known as f.a.q.—that is, fair average quality. In New South Wales the standard is fixed annually by a committee of members of the Sydney Chamber of Commerce and two Government representatives. Samples obtained from each of the wheat districts are weighed on McGuirk's Patent Scale, and an average struck which is used as a standard in all wheat transactions. The f.a.q. standard for the season 1910-11 was fixed at 62½ lb. per bushel.

The proportion of the different grades of wheat in a standard bushel from the wheat-producing States of Australia for the 1910-11 harvest was as follows:—

Grade.	New South Wales.	Victoria.	South Australia.	Western Australia.
	lb. oz.	lb. oz.	lb. oz.	lb. oz.
3·25 millimetre mesh	1 12½	2 2½	1 13	4 1½
3·00 " "	5 10½	7 8½	7 0	8 3½
2·75 " "	13 0	17 2	20 4½	20 5
2·50 " "	14 11½	16 6½	16 14½	17 6
2·25 " "	20 15½	11 8½	10 8½	8 12½
2·00 " "	2 15	3 8½	3 5	1 9½
Broken and pinched grain	2 0	2 3½	2 2	1 9½
Oats, whiteheads, &c.	1 3½	1 15½	0 9	0 9½
	62 4	62 8	62 8	62 8

The f.a.q. standard of New South Wales, Victoria, and South Australia for the 1911-12 harvest has been fixed at 61½ lb. per bushel.

The chief objection raised by wheat-growers to this method of grading on a single standard is that it discourages the cultivation of grain of a

very high quality which does not command a price commensurate with its greater value as compared with wheat which just reaches the standard. Moreover, it is stated that the weight of the grain is not a true indication of its quality, the standard of which varies according to the purposes for which it is required.

The following comparison shows the standard in New South Wales for each season since 1898-9, and the date on which it was fixed in each year:—

Year.	Date Fixed.	Standard.	Year.	Date Fixed.	Standard.
		lb.			lb.
1898-1999	23rd Feb., 1899	61	1905-1906	24th Jan., 1906	62
1899-1900	23rd „ 1900	61	1906-1907	24th „ 1907	62½
1900-1901	21st „ 1901	61	1907-1908	24th „ 1908	62½
1901-1902	27th Jan., 1902	61½	1908-1909	22nd „ 1909	61½
1902-1903	None fixed—drought.		1909-1910	31st „ 1910	62
1903-1904	28th Jan., 1904	61	1910-1911	13th Feb., 1911	62½
1904-1905	19th „ 1905	59½	1911-1912	1st „ 1912	61½

Under the present system of transport the wheat is bagged on the farm and brought to the nearest railway station, whence, if for export, it is carried in bags by rail to Sydney for shipment. At some of the stations the Railway Department has erected sheds, and a small charge is made to the farmers for storage. At Darling Harbour, where all the grain ships are loaded, grain sheds and bag elevators have been provided.

This system has many disadvantages, apart from the cost of bags and the great amount of labour required for handling grain in bags. In the event of a large yield, considerable loss is caused by delays at country railway stations, especially where the shed accommodation is insufficient and the stacks are exposed to damage by rain as well as pests, and the supply of rolling-stock is inadequate, as the space at the Harbour is too limited for the speedy manipulation of the trucks.

A comparison with these methods is found in the United States, Canada, Argentine, and other wheat-producing countries where wheat is handled in bulk. In Canada, for example, the grain is brought from the farms and stored in a loose condition in elevators at country railway stations pending transport by rail to large terminal elevators in the trading and shipping centres. On depositing the grain in the country elevator the farmer may obtain a certificate of its weight and quality; this certificate is guaranteed by the Government, and practically has legal currency in the Dominion. The grain elevators and warehouses in operation in Canada under Government license during the year ended 31st August, 1911, numbered 1,941. In the Western Grain Division there were 1,866 public country elevators and 32 warehouses capable of holding 57,487,300 bushels, and 19 terminal and milling elevators with a capacity of 27,440,400 bushels; in the Eastern Division there were 24 transfer elevators of a capacity of 20,535,000 bushels, making a total of 1,941 elevators capable of holding 105½ million bushels of grain. The rapid expansion of the elevator system may be seen by a comparison with the figures for the year 1900-1, when there were only 523 elevators, with a total capacity of less than 19 million bushels.

In the United States the elevator system is used for grain shipped from the Atlantic Coast, but in the Pacific Coast region the grain is still handled in bags. A great obstacle to the introduction of the elevator system in the latter region, as in Australia, is the requirement of marine insurance that grain for export must be carried in sacks, as it has not been considered safe to load a vessel with bulk grain for the long sea

voyage to Eurpoe. The distance is about the same as from Australia, but will be considerably shortened by the opening of the Panama Canal.

In 1910, however, a project was reported for the establishment of a line of elevators for coastwise trade which is rapidly increasing, while the foreign exports have declined. The explanation for this change in the direction of the trade is as follows :—The four States which constitute the Pacific Coast region are Washington, Oregon, Idaho, and California. In California, grain production is giving place to other forms of agriculture which are more profitable in that State, and many grain ranches which formerly produced large quantities of wheat have been divided into small fruit and vegetable farms. In consequence of this diversity of industry and the rapid growth of population, a large and increasing proportion of the surplus grain of the other three States is required for consumption in California, and the quantity available for foreign export has decreased.

In comparing the systems of Canada and the United States with the Australian, it must be noted that in America, on account of the great distances of the wheat areas from the commercial and shipping centres, the grain must be handled several times and conveyed by rail from 1,200 to 3,000 miles; whereas in Australia the wheat districts are, in most cases, in proximity to the coast. The advantage of Australia in this respect, however, is modified by the longer distance from the European markets. The extra cost to Australia for freight to the United Kingdom will be seen in the following comparison. The rates relate to the year 1909-10 :—

Country.					Average Freight per ton (2,340 lb.)
United States—					s. d.
San Francisco	...	...	...	...	23 9
New York	...	...	...	...	5 1
Argentine—					
Upper River Plate	...	...	...	...	9 10½
Lower River Plate	...	...	...	...	8 6
Bahia Blanca	...	...	...	...	9 3½
Russia—					
Odessa	...	...	...	...	8 0½
India—					
Karachi	...	...	...	...	14 4½
Australia	...	...	...	...	24 5½

This statement emphasises the necessity of adopting in Australia the most economical method of handling grain to compensate for the extra cost of ocean transport as compared with the cost to other wheat-producing countries. The rates from all the ports shown above, except San Francisco on the Pacific Coast of the United States, are much lower than from Australia, and the cost of insurance is also less in proportion to the length of the sea journey.

The question of introducing the bulk-handling system has been the subject of many inquiries and investigations in Australia, but up to the present no satisfactory plan has been arranged.

In 1909 a report was presented to the Parliament of South Australia by a Commission appointed to inquire into the marketing of wheat in that State. As regards bulk-handling, the Commissioners found a considerable diversity of opinion. The chief advantages claimed were—saving in use of bags; cheaper handling between farm and wharf; expeditious loading of boats and cheaper sea freights; expeditious use of railway rolling-stock; prevention of waste, higher prices through grading,

and better cleaning. The principal objections against the adoption of this system were — its great initial cost; unsuitability of vessels used for carrying wheat; uncertainty as to whether grain can be carried satisfactorily in bulk from Australia; insufficient quantity exported to justify the installation of the system; hostile attitude of shippers; and the limited number of foreign ports possessing facilities for handling wheat in bulk.

After due consideration of the evidence placed before them, the Commissioners found that they would not be justified in recommending its immediate installation on account of the unfriendly attitude of the shippers, the fact that the securing of adequate shipping provision would take a considerable time, and the need for completely demonstrating that no substantial difficulty would arise with regard to insurance, conveyance on the ocean, condition of the grain, rates of sea freights, delivery at the other end, and the price obtainable for graded wheat. They recommended, however, that a small equipment be provided at the Outer Harbour, Port Adelaide, to facilitate the conduct of experimental shipments by the Government and by private exporters. This would enable the interested parties to become familiarised with the advantages of the system, and prepare the way for its gradual extension or complete adoption, as might seem advisable. The installation of these facilities is now proceeding, and the experiments will be watched with interest throughout the Commonwealth.

The matter of initial cost, or, more correctly, the uncertainty as to whether there would be a substantial saving after paying working expenses and interest on capital, has undoubtedly been the main factor acting against the introduction of bulk-handling. It is interesting to note, in connection with this phase of the question, that the South Australian Commission estimated that, apart from other advantages, the saving to the farmers in the use of bags alone would range from £40,000 to £60,000 on the basis of a harvest of 20 million bushels. It is contended, however, that the value of the bags is taken into consideration by the buyers, and that bagged wheat commands a higher price.

As regards the construction of terminal elevators, New South Wales possesses an advantage over South Australia by reason of the fact that all the wheat in this State is shipped at one port—Sydney—while in South Australia oversea vessels were loaded at as many as thirteen ports in the 1910 season. The cost of land for a terminal elevator and the requisite shunting area for the speedy manipulation of railway rolling-stock would be enormous in a city like Sydney; but in evidence before the Decentralisation Commission, in 1911, it was pointed out that if the system were installed in conjunction with the decentralisation of railway traffic, land could be acquired at a new centre at a comparatively low cost.

In reference to the unsuitability of vessels, a noticeable feature of the wheat export trade, during the period which has elapsed since the South Australian report was made, has been the substitution of steamers for sailing vessels, which are not practicable for cargoes in bulk. The proportion of wheat now carried in sailing vessels is very small, and in the construction of a large number of steamers which have entered the Australian trade during the last few years shipowners have evinced a remarkable readiness to provide for special requirements. For these reasons this objection should not prove a serious obstacle to the installation of bulk-handling. Experiments have been conducted with the view of investigating the question as to whether grain can be carried satisfactorily in bulk to Europe, and a number of trial shipments by steamer from Sydney have arrived in England in excellent condition.

With regard to facilities for bulk-handling at ports to which our wheat is sent, information was obtained by the Agent-General for New South Wales in 1908, which showed that all the English ports to which wheat is shipped, receive it in bulk as well as in bags; and at nearly all the principal docks there are elevators, by which wheat arriving in bulk can be unloaded with greater rapidity and at less expense than grain in bags. On the other hand, the railway possessed no facilities for handling grain in bulk, and wheat requiring railway transport had to be bagged at the port. The quantities of imported wheat handled by the railways, however, was comparatively small. Shipowners preferred wheat to be sent in bulk on account of the economy of space and the more rapid discharge, but the merchants preferred the system of shipping in bags. Their chief reason was, apparently, that wheat in bags is weighed in small lots of about 4 bushels, and on each occasion the merchant gets the benefit of the draft required to turn the scale; whereas bulk wheat is weighed in lots of 1 ton or more. However, no objection had been made by merchants handling Argentine wheat, which has somewhat similar characteristics to the Australian, and which is brought to England in bulk in large and increasing quantities.

A Royal Commission was appointed in New South Wales in 1911 to inquire into the cost of living in relation to prices of the principal articles of food and in relation to production, transport, export trade, &c. Within the scope of this inquiry the subject of bulk-handling of grain has been included.

MAIZE.

Maize ranks second in importance amongst the crops of New South Wales; but its cultivation is small in contrast to that of wheat, although thirty-three years ago there was very little difference in the areas under each cereal. In 1881 the area under maize was half that under wheat; now it is one-tenth.

This cereal is cultivated chiefly in the valleys of the coastal rivers, where both soil and climate are peculiarly adapted for its growth. On the tableland also good results accrue, and as the land rises in elevation so the average yield per acre proportionately decreases; although, in compensation, the grain produced is of more enduring quality for export and storage. The following statement shows the distribution of the area under maize for grain during the year ended March, 1911, with the production and average yield in each district:—

Division.	Area under maize for grain.		Yield.	
	Acres.	Per cent. of total area.	Bushels.	Bushels per acre.
Coastal—				
North	67,925	31·9	2,688,279	39·6
Hunter and Manning	46,127	21·6	1,810,449	39·2
Cumberland	4,796	2·3	125,968	26·3
South	18,362	8·6	682,116	37·1
	137,210	64·4	5,306,812	38·7
Tableland—				
Northern	18,338	8·6	502,688	27·4
Central	17,532	8·2	593,126	33·8
Southern	2,672	1·3	102,300	38·3
	38,542	18·1	1,198,114	31·1
Western Slopes... ..	36,311	17·0	1,057,756	29·1
Western Plains, Riverina, and Western Division	1,154	·5	31,448	27·3
All Divisions... ..	213,217	100·0	7,594,130	35·6

The North Coast is the most important maize-growing district in the State, having yielded in 1911 over 35 per cent. of the total production, the average yield being 39·6 bushels per acre. After the North Coast, the Hunter and Manning district shows the largest area under crop. The highest average yield in any county was in Mitchell, in the Riverina division, with 64·9 bushels per acre. On the North Coast, the best counties were Dudley and Raleigh, which gave 51 and 42 bushels per acre respectively. In 1910-11 the average yield on the tableland was 31 bushels per acre, and on the western slopes 29 bushels. At an early period in the history of the North Coast, maize displaced wheat as a product, but latterly dairying has been replacing maize-growing, and a larger proportion of the area under maize is cut for green food for dairy stock.

The next statement gives a comparative review of the maize crop since the year 1892 :—

Year ended 30th June.	Area under maize for grain.	Production.		Year ended 30th June.	Area under maize for grain.	Production.		
		Total.	Average per acre.			Total.	Average per acre.	
	acres.	bushels.	bushels.		acres.	bushels.	bushels.	
1892	174,577	5,721,706	32·8	1905	193,614	4,951,132	25·6	
1893	167,549	5,037,256	30·1	1906	189,353	5,539,750	29·3	
1894	205,885	7,067,576	34·3	1907	174,115	5,763,000	33·1	
1895	208,308	5,625,533	27·0	1908	160,980	4,527,852	28·1	
1896	211,104	5,687,030	26·9	1909	180,812	5,216,038	28·8	
1897	211,382	5,754,217	27·2	1910	212,797	7,098,255	33·4	
1898	209,588	6,713,060	32·0	1911	213,217	7,594,130	35·6	
1899	193,286	6,064,842	31·4					
1900	214,697	5,976,022	27·8					
1901	206,051	6,292,745	30·5					
1902	167,333	3,844,993	23·0	Average for 20 years ended 1911			29·15	
1903	202,437	3,049,269	15·1	„	10	„	1901	29·93
1904	226,834	6,836,740	30·1	„	10	„	1911	28·32

During the last twenty years there have been several fluctuations in the area under cultivation. The largest area—226,834 acres—was cropped in 1904, but the largest yield was produced in 1911. The yield per acre is somewhat variable, ranging from 15·1 bushels in 1903 to 35·6 bushels in 1911, and generally the tendency has been for the average to decrease, owing to the reduction of the area in the coastal districts, where the average yield is highest. In the most favourable localities yields of 80 to 100 bushels per acre have been obtained, and probably few places are better suited for the growth of maize than the coastal districts of New South Wales.

Until 1890 the State produced more maize than could be consumed locally, and exported a small quantity to southern States, but in almost every year since there has been an excess of import. Practically nothing has been done to develop an oversea export trade, although the demand for maize is apparently increasing in the United Kingdom and Europe.

This indicates a disregard for the potentialities of the State, and is not easily explained. There is no doubt that the uncertainty as to the price that will be realised for maize—an uncertainty which is shared with all produce grown only for local consumption—has caused the cultivation of this cereal to decrease in favour on the coast and tableland, while on the other hand the profit to be obtained from dairying has led to its further neglect. Another possible reason for the decline is the small attention that has been paid to the cereal as regards scientific cultivation and experiment. During recent years wheat has received very close study as to the kinds suited to various localities and climatic conditions, and as to improvements in cultivation and harvesting, but maize has received little

consideration. The falling tendency of the average yield in recent years shows also that the soil has been depleted of its fertility through constant cropping, and emphasises the need for systematic attention to proper rotation, manuring, cultivation, the introduction of new varieties, and careful selection of seed.

OATS.

The cultivation of oats has been much neglected in New South Wales, though the return has been fairly satisfactory, and the deficiency between the production and the consumption is very considerable. The elevated districts of Monaro, Argyle, Bathurst, and New England contain large areas of land where the cultivation of oats could be maintained with good results.

This cereal is cultivated as a grain crop, principally in the wheat-growing districts; and as it is essentially a product of cold climates, it thrives best in those parts of the country which have a winter of some severity. The principal districts where oats are grown are the tableland, the South-western Slope and Riverina. The area under crop for grain in 1911 was 77,991 acres, which produced 1,702,706 bushels, being 21·8 bushels per acre. The northern tableland gave the best average, with 24·6 bushels per acre. In the whole tableland division, 23,132 acres were under crop, and yielded 538,005 bushels, or 23·3 per acre; on the South-western slope, 22,637 acres gave 477,788 bushels, or 21·1 per acre; while in the Riverina the production was 481,481 bushels from 20,572 acres, or 23·4 bushels per acre. These three divisions accounted for about 88 per cent. of the total production. In the remainder of the State there were only 11,650 acres under cultivation, which yielded 205,432 bushels.

The following table illustrates the progress in the cultivation of oats for grain during the last twenty years:—

Year ended 31st March.	Acres under oats for grain.	Production.		Year ended 31st March.	Acres under oats for grain.	Production.	
		Bushels.	Bushels per acre.			Bushels.	Bushels per acre.
1892	12,958	276,259	21·3	1904	51,621	1,252,156	24·3
1893	20,890	466,603	22·3	1905	40,471	652,646	16·1
1894	34,148	701,803	20·6	1906	38,543	883,081	22·9
1895	30,636	562,725	18·4	1907	56,431	1,404,574	24·9
1896	23,750	374,196	15·8	1908	75,762	851,776	11·2
1897	39,530	834,633	21·1	1909	59,881	1,119,558	18·7
1898	28,605	543,946	19·0	1910	81,452	1,966,586	24·1
1899	19,874	278,007	14·0	1911	77,991	1,702,706	21·8
1900	29,125	627,904	21·6	Average for 20 years ended 1911			19·5
1901	29,383	593,548	20·2				19·5
1902	32,245	687,179	21·3				
1903	42,992	351,758	8·2				

The area under oats for grain, with slight fluctuations, remained practically stationary until the year ended March, 1894, when over 13,000 acres were added; the rate has since increased, with variations due to the seasons; and in 1910 the area reached 81,452 acres. The average yield varies considerably, and in a fair season will exceed 20 bushels per acre, the average for the last ten years being 19·5 bushels. The lowest average yield was 8·2 bushels per acre in 1903, when the crop almost failed, owing to the unfavourable season; and the highest average yield was 24·9 bushels in 1907.

The market for oats is chiefly in the metropolitan district, and the demand depends mainly on the price of maize. The production is far from sufficient for the wants of the State, and large quantities are imported from Victoria, Tasmania, and New Zealand.

Much therefore remains to be done before the State can be independent of outside assistance; but there is strong reason to believe that as agricultural settlement is developed on the northern tableland this cereal will receive more attention.

BARLEY.

Barley is an important crop, but at present is produced on a moderate scale, although there are several districts where the necessary conditions as to soil and drainage present inducements for cultivation, and particularly with regard to the malting varieties. It is mostly grown in the Tamworth district, on the North-west Slope, the area in that part during 1910-11 being 3,312 acres, from which the bulk of the produce was for malting purposes. The areas under crop in other districts are small, and do not call for special notice. For the State as a whole the following table shows the area under barley for grain, together with the production in each year since 1892:—

Year ended 31st March.	Area under barley for grain.	Production.		Year ended 31st March.	Area under barley for grain.	Production.	
		Total.	Average per acre.			Total.	Average per acre.
	acres.	bushels.	bushels.		acres.	bushels.	bushels.
1892	4,459	95,446	21.0	1904	10,057	174,147	17.3
1893	4,618	91,701	19.9	1905	14,930	266,781	17.9
1894	6,113	114,272	18.7	1906	9,519	111,266	11.7
1895	10,396	179,348	17.3	1907	7,879	152,739	19.1
1896	7,590	96,119	12.7	1908	11,890	75,148	6.3
1897	6,453	110,340	17.1	1909	9,507	166,538	17.5
1898	5,151	99,509	19.3	1910	15,091	272,663	18.1
1899	4,459	64,094	14.4	1911	7,082	82,005	11.6
1900	7,154	132,476	18.5	Average for 20 years ended 1911...			15.5
1901	9,435	114,228	12.1				14.7
1902	6,023	103,361	17.2	Average for 20 years ended 1911...			15.5
1903	4,557	18,233	4.0	,, 10 ,, 1911...			14.7

The record exhibits considerable fluctuations as to area and as to the average production per acre, thus indicating that farmers consider it more profitable to devote their attention to the other cereals, the immensely larger areas for which clearly point to their preference. From the table it appears that limited areas were cultivated, until in 1895 there were upwards of 10,000 acres. With great variations, down to 4,500 acres, it was not until nine years later that the area again reached the figures for 1895. A maximum year was experienced in 1910, when the total suddenly expanded to 15,091 acres, which produced 272,663 bushels.

The decrease in the year ended March, 1911, was due to the unfavourable season in the North-western Slope Division, where the greater part of the barley is produced.

As to yield, great variations are to be found, ranging from 4 bushels per acre in 1903, when the crop practically failed, to the excellent rate of 21.9 bushels obtained in 1887. The average crop during the last ten years has been 14.7 bushels per acre; but as there were two extremely adverse seasons in the period, this rate should not be regarded as characteristic; on the other hand, the returns for many seasons indicate that an average crop of 18 bushels per acre may be expected under normal conditions.

A remunerative price can be obtained from maltsters for suitable grain, and if the farmers were to consult with the users as to requirements in threshing, &c., and to treat the grain accordingly, no doubt a mutually advantageous trade could be developed, which would displace the importations at present necessary, and which are derived mainly from New Zealand growers.

RYE.

Rye is cultivated to a very limited extent, and is grown either in separate areas, or in combination with leguminous crops, largely as green food for dairy cattle, the supply for grain being obtained mainly in the central part of the tablelands of the State. The total area under this cereal during 1910-11 was 4,193 acres; the average yield during the last ten years was 12·1 bushels per acre, the best year being 1904, with an average of 16·3 bushels. The average for 1911 was 13·6 bushels.

BROOM MILLET.

Broom millet is a small but valuable crop, the return from the fibre alone amounting to £41,420. In 1910-11 the area under broom millet was 4,467 acres, from which 39,451 cwt. of fibre and 29,218 bushels of grain were obtained, the averages being 8·9 cwt. and 9·2 bushels respectively per acre. The average yield of fibre during the last ten years was 6·7 cwt. per acre. In 1904, 1910, and 1911 the averages exceeded 8 cwt. per acre. The greater part of the crop is grown in the Hunter River Valley and in the valleys of the northern coastal rivers.

HAY.

A very considerable proportion of the areas under wheat, oats, barley, and lucerne are utilised for the production of hay for farm stock, and chaff for the markets. These are increasing, but the extent of the increase depends on the climatic conditions of the season, which determine the future of the crops for grain purposes.

The following statement shows the area under each crop for hay, the total production, and the average return per acre during the last six years:—

Type of Hay.	1906.	1907.	1908.	1909.	1910.	1911.
AREA.						
	acres.	acres.	acres.	acres.	acres.	acres.
Wheat	313,582	316,945	365,925	490,828	380,784	422,972
Oats	88,495	94,420	132,325	169,441	178,968	142,805
Barley	2,397	843	937	1,566	1,844	1,014
Lucerne	33,562	45,964	43,574	54,061	68,995	70,559
Rye ... ..	.....	.....	.....	.....	73	1,227
Total	438,036	458,172	542,761	715,896	630,664	638,577

PRODUCTION.

	tons.	tons.	tons.	tons.	tons.	tons.
Wheat	304,714	403,109	198,230	426,916	565,549	467,669
Oats	93,522	131,355	99,865	186,243	255,781	193,064
Barley	1,856	1,202	638	1,757	2,451	1,128
Lucerne	59,090	86,180	78,067	115,098	157,331	179,860
Rye ... ..	.....	.....	.....	.....	89	1,359
Total	459,182	621,846	376,800	730,014	981,201	843,080

AVERAGE PRODUCTION PER ACRE.

	tons.	tons.	tons.	tons.	tons.	tons.
Wheat	0·97	1·27	0·54	0·87	1·49	1·11
Oats	1·06	1·39	0·75	1·10	1·43	1·35
Barley	0·77	1·43	0·68	1·12	1·33	1·11
Lucerne	1·76	1·87	1·79	2·13	2·28	2·55
Rye ... ..	.....	.....	.....	.....	1·22	1·17
All varieties ...	1·05	1·36	0·69	1·02	1·56	1·32

About 66 per cent. of the total area under cultivation for hay is taken up by the area under wheaten hay. Until 1894 the area for wheaten hay increased at a much greater rate than that for grain, but during subsequent years, on account of the great development in wheat cultivation, there has been little difference in the ratio of the two forms of production.

In general, oats are grown in parts of the State which, on account of the climate, are unsuitable for maturing the grain, and preference is given to cultivation for hay; moreover, the prices obtainable for the hay are usually so profitable as to prevent any material development of the grain harvest.

The area under barley for hay is inconsiderable. Lucerne hay is always in good demand, and consequently realises remunerative prices. It gives the best return of all hay crops, the average yield during the last ten years having been over 2 tons per acre for lucerne, slightly more than one ton each for barley and oaten, and nearly one ton for wheaten hay. In favourable districts, if it has received careful attention, lucerne grows so rapidly that a series of crops may be secured. As many as eight cuttings have been secured, with an average result of one ton per acre for each.

The growing of hay is evidently receiving additional attention every year; but there is still a considerable margin between the amount of hay required in the State and the local production.

GREEN FOOD AND SOWN GRASSES.

The great advance in the dairying industry, the details concerning which are treated elsewhere, has caused a corresponding increase during recent years in the cultivation of cereals, lucerne, and grasses, for green food. The sowing and improvement of artificial grasses have received great attention, particularly in the northern and southern coastal districts, the great centres of the dairy farming of the State. Considerable areas have been sown also in the centre of the tableland, and smaller cultivations have been undertaken in the northern and southern tablelands and in the Murray Valley. The following statement shows the increase in the area cultivated for green food and sown with artificial grasses since the year ended 31st March, 1886:—

Year ended 31st March.	Area cultivated for green food.	Area sown with grasses.	Year ended 31st March.	Area cultivated for green food.	Area sown with grasses.
	acres.	acres.		acres.	acres.
1886	26,318	130,392	1905	37,718	607,997
1891	37,473	388,715	1906	95,058	627,530
1896	66,833	300,862	1907	122,914	697,631
1901	78,144	422,741	1908	260,810	736,080
1902	113,060	467,839	1909	235,539	807,924
1903	109,287	477,629	1910	118,960	888,937
1904	77,130	552,501	1911	179,382	1,055,303

The great advance in cultivation indicated by the table shows the appreciation by the farmers of the necessity for enriching the deteriorated pastures, and for replacing the grasses which have disappeared.

Lucerne is grown in considerable quantities on the Hunter River flats, and the cultivation of this fodder is extending throughout the country, principally along the banks of the rivers on the western slope of the Dividing Range. In the far western pastoral districts attempts have been made to cultivate lucerne under irrigation, and have met with marked success. During 1910-11 there were 50,349 acres grown for green food, and if these be added to the area previously shown as being under hay, viz., 70,559 acres, there were altogether 120,908 acres under this form of cultivation. In the United States and Argentine, where experiments have proved that it will succeed, lucerne is superseding the indigenous grasses.

ENSILAGE.

New South Wales is liable, at intervals, to long periods of dry weather, and in occasional years severe droughts occur; hence the necessity for conserving green foods in the form of ensilage must be readily admitted. Ensilage is also clearly an advantage in the dairying districts of the coast, where the conditions are unfavourable to the growth of winter fodder.

The quantity of ensilage made during the last five years is shown in the following table:—

Divisions.	Ensilage made.				
	1906.	1907.	1908.	1909.	1910.
	tons.	tons.	tons.	tons.	tons.
Coastal	2,667	5,621	12,427	11,133	18,125
Tableland	1,522	1,825	3,339	3,414	2,328
Western Slopes	5,115	3,681	6,374	10,632	2,654
Western Plains and Riverina...	2,528	1,529	5,168	9,334	6,409
Western Division	17	200	160	334	100
Total	11,849	12,856	27,468	34,847	29,616

Comparatively little attention has been devoted to the construction of silos, and the storing of ensilage; but the necessities of the grazier, when the policy of closer settlement shall have reduced the large areas of land hitherto available for feeding stock, will compel him to make provision by preserving and storing the green food when opportunities occur in the growing season of the year.

It will be seen that the ensilage has steadily increased during the last quinquennium, the amount in 1909 being the highest recorded; but there was a decrease in 1910 in all divisions except the coastal. The whole amount was made on 258 farms, and is valued at £40,432; but it is particularly noticeable in the above table that the quantities of ensilage made are almost negligible in the Western Division, where, it is probable, there is the greatest need of such provision.

POTATOES.

In the potato is another illustration of the great neglect in the cultivation of a staple article of food, although many parts of the State are eminently suitable for its growth. The bulk of the production is on the tableland, especially in the central portion, where, in 1911, there were 38,446 acres under cultivation. One county, Bathurst, had 16,619 acres, or over one-third of the whole area devoted to potatoes in the State. After the tableland, the coastal districts grow the largest crops. The highest average—3·18 tons per acre—was returned by the central tableland. The following statement shows the area under cultivation and the production at intervals since 1886:—

Year ended 30th June.	Area under crop	Production.		Year ended 30th June.	Area under crop.	Production.	
		Total.	Average per acre.			Total.	Average per acre.
	acres.	tons.	tons.		acres.	tons.	tons.
1886	15,166	38,695	2·55	1907	36,815	114,856	3·11
1891	19,406	52,791	2·72	1908	31,917	55,882	1·75
1896	24,722	56,179	2·27	1909	26,301	71,794	2·73
1901	29,408	63,253	2·15	1910	35,725	100,143	2·80
1902	26,158	59,146	1·50	1911	44,452	121,033	2·72
1903	19,444	30,732	1·58	Average for 10 years ended 1901 ...			2·55
1904	20,851	56,743	2·72				2·36
1905	23,855	48,754	2·04				
1906	26,374	50,386	1·91				
				Average for 10 years ended 1901 ...			2·55
				,, 10 ,, 1911 ...			2·36

There was a marked increase in cultivation in the year ended June, 1895, when 30,089 acres were planted; but the continuous fluctuation in the area from year to year since that time clearly shows that the possible advantages of this crop have been much neglected.

The average yield during the last ten years has been 2·36 tons per acre, and the highest 3·11 tons per acre, in 1907. At present New South Wales has to meet a considerable deficiency by importation from the other States, chiefly Victoria and Tasmania.

The slow progress in the cultivation of potatoes is caused largely by the cost of carriage to market, as compared with the cheap water transport from Victoria and Tasmania. Some years ago the coast districts produced large quantities of potatoes; but the cultivation was abandoned, owing to the prevalence of pests, which continually devastated the crops, and for which, at the time, a remedy was not available.

During 1911 an officer was appointed by the Department of Agriculture to give instructions to potato-growers, and to deal generally with this crop, with the object of selecting and evolving varieties which will be disease-resistant.

MINOR ROOT CROPS.

The cultivation of root crops other than potatoes requires brief notice, as only 937 acres were planted with onions, turnips, mangold-wurzel, carrots, sweet potatoes, and artichokes. The area under turnips was 279 acres, which yielded 1,335 tons, or 4·78 tons per acre. The probable reason for the small attention paid to the growth of onions, of which there were 241 acres, yielding 943 tons, is the uncertainty as to the price to be obtained for the produce, as there is no lack of soil suited to cultivation. Large importations are necessary to meet the local demand.

The area under sweet potatoes was 369 acres, and the yield 2,142 tons. Of mangold-wurzel there were only 36 acres under cultivation, which yielded 266 tons. In some of the more elevated dairying districts, mangold-wurzel is now being grown as winter fodder for cattle. Excellent results in the cultivation of arrowroot have been obtained at the Wollongbar experiment farm, near Lismore.

TOBACCO.

The growing of tobacco as an industry has been undertaken for many years, but with considerable fluctuation in the annual production. This may, perhaps, be attributed to the necessity for special knowledge and care in its cultivation and curing, and probably no material advancement will be made until trade pressure in other countries forces attention to new fields of production.

Originally the plant was cultivated chiefly in the agricultural districts of the county of Argyle and the Hunter River Valley, but these districts have now been abandoned, and the little that is grown is found in the northern and southern portions of the western slope and on the central tableland. The following statement shows the cultivation of tobacco during the last ten years:—

Year ended 31st March.	Area.	Production.		Year ended 31st March.	Area.	Production.	
		Total.	Average per acre.			Total.	Average per acre.
1902	acres. 182	cwt. 1,971	cwt. 10·8	1909	acres. 618	cwt. 3,838	cwt. 6·2
1903	251	2,604	10·4	1910	1,096	6,498	6·8
1904	407	5,320	13·1	1911	959	8,513	7·8
1905	752	5,015	6·7	Average for 20 years ended 1911			9·3
1906	809	7,327	9·1				8·0
1907	601	5,371	8·9				
1908	533	3,438	6·5				

For seven or eight years prior to 1889 the area under cultivation grew steadily, until in that year it reached the highest figure it has ever attained, namely, 4,833 acres. As however, the local product did not compare favourably with the American leaf, it could not be exported profitably, so that a large proportion of the crop remained upon the farmers' hands, and as the quantity sold realised very unsatisfactory prices, due mainly to the failure to produce, by cultivation and curing, a first-grade article, many growers abandoned tobacco in favour of other crops. With the accumulation of stocks of leaf, and the fall in the price of the local product, the area under the plant and the resultant yield declined rapidly, until in 1895 the acreage was only 716. During the next two years there was a little more activity, and the area increased to 2,744 acres in 1897; it, however, fell away again after that year, and in 1902 amounted to only 182 acres. During the next four years the area increased, and in 1906 it was 809 acres; but in 1908 it had declined to 533 acres. Since that year the area has increased to 1,096 acres, owing to the increased attention paid to the curing of the leaf. Tobacco manufacturers have endeavoured to stimulate the industry by offering good prices for suitable leaf, and employing an expert to assist and instruct the growers.

The Commonwealth Government in 1907 provided for the payment of a bounty of 2d. per lb. up to £4,000 per annum for five years on Australian tobacco leaf, for the manufacture of cigars of a prescribed quality.

Since few countries are better favoured than this State with climate and soil necessary for successful cultivation, it is a matter for regret that the industry has not made more satisfactory progress. This has been due partly to the grower and partly to the market. With an improvement in the quality of the leaf, the local consumption could be rapidly overtaken and an export trade promoted. Tobacco of excellent quality has been produced, but much of it is now grown by Chinese, who consider weight rather than quality, and an inferior leaf is the consequence. There is, therefore, ample scope for improving the quality of the product sufficiently to satisfy the local consumer.

In 1910 the services of an expert were secured to visit the centres of tobacco growing, for the purpose of advising and assisting growers in the operations of sowing, harvesting, and curing, and trial packets of seed were distributed in each district. As a result, the prospects of the tobacco industry have become more favourable.

The impression that it is not possible to produce tobacco of high quality in New South Wales probably arose from experience of a product grown in unsuitable soil, and carelessly cultivated. During recent years excellent tobacco has been grown at Ashford, in the Inverell district generally, and near Tumut, under the guidance of a departmental expert, proving that it is possible to grow in the State a tobacco well suited to the most fastidious market, and if a regular supply were available, properly fermented and packed, a large trade might be developed.

SUGAR-CANE.

Sugar-cane was grown as far back as 1824, but it was not until 1865 that anything like systematic attention was given to the matter. In the latter year experiments were carried out on the Clarence, Hastings, Manning, and Macleay Rivers which on the whole proved successful, and were followed by more extensive planting. The Macleay may be regarded as the principal seat of the industry during its earlier stages; but it proved to be unsuitable to the growth of the cane, and the risk of failure from frosts compelled the planters to keep more to the north. In a few years the richest portions of the lower valleys of the Clarence, the Richmond, the Tweed, and the Brunswick, were occupied by planters. Mills were erected in the chief

centres of cane-cultivation, and cane-growing and sugar-manufacturing became established industries in the north-eastern portions of the State. Although frosts are sometimes experienced in this region, the soil and climate of the valleys of the northern rivers are in most respects well adapted to successful cultivation, and it is confined principally to the valleys of the Richmond, Tweed, and Clarence Rivers, where, on account of the proximity to Queensland and the similarity to the conditions which rule the sugar production of the northern cane-fields, the producers of the raw material in this State may benefit by any experimental work. Continual efforts are being made to improve the quality of the cane product; varieties and seedlings are carefully tested, soils are closely analysed, the effects of irrigation and fertilising noted, and by due regard to these points the cane-yield has been greatly increased.

As the difference between the results of good cultivation as opposed to merely growing cane without the application of scientific principles may extend the yield to 34 tons per acre, it is evident careful methods will reap a reward in an enhanced production.

The yield of sugar from the cane crushed varies considerably, the variation approximating, between a maximum and minimum year, to 1 ton of cane in the quantity required to make 1 ton of sugar, according to the saccharine density of the cane. As compared with Queensland, where the average yield of cane per acre was 19·4 tons, the yield for this State may be regarded as satisfactory, but as compared with the produce which could be gathered by the application of more scientific methods of culture, there is evidence that considerable improvement might easily be made.

The following table shows the progress of this industry since the year ended March, 1864, when only 2 acres were recorded as under cultivation. As sugar-cane is not productive within the season of planting, the area under cultivation has been divided, as far as practicable, into productive and non-productive, the former representing the number of acres upon which cane was cut during the season, and the latter the area over which it was unfit for the mill, or allowed to stand for another year. On the average the area cut for cane represents about one-half of the total area planted.

Year ended 31st March.	Area.			Production of cane.	
	Cut for crushing.	Not out.	Total.*	Total.	Average per acre.
	acres.	acres.	acres.	tons.	tons.
1864	.....	.....	2	.....	.....
1865	.....	.....	22	.....	.....
1866	.....	.....	141	.....	.....
1871	1,475	2,607	4,082	.....	.....
1876	3,654	2,800	6,454	.....	.....
1881	4,465	6,506	10,971	121,616	27·22
1886	9,583	6,835	16,418	239,347	24·98
1891	8,344	12,102	20,446	277,252	33·23
1896	14,398	18,529	32,927	207,771	14·43
1901	10,472	11,642	22,114	199,118	19·01
1902	8,790	12,019	20,809	187,711	21·35
1903	8,734	11,492	20,226	183,105	20·97
1904	10,368	9,814	20,182	227,511	21·94
1905	9,772	11,753	21,525	199,640	20·43
1906	10,313	11,492	21,805	201,998	19·59
1907	10,378	10,202	20,580	221,560	21·34
1908	9,916	8,037	17,953	277,390	27·97
1909	6,951	10,030	16,981	144,760	20·83
1910	6,480	7,603	14,083	131,081	20·23
1911	5,596	8,167	13,763	160,311	28·65

* Exclusive of areas cut for green food or plants since 1910.

From the small beginnings of 1864 there was but one single break (that of 1876) in the yearly increase of land put under cane until 1885. During succeeding years there was, however, a retrograde tendency, and the area cultivated in 1889 was less by 2,236 acres than that cultivated in 1885. The low price of the product and the disturbed state of the markets of the world during these years forced the sugar manufacturers to reduce the price offered for the cane, and so caused, for a time, the abandonment of this cultivation by the small farmers, who found in the growth of maize less variable results for their labour.

In 1890 there was an increase in the area under cane of 1,213 acres, with further increases in successive years until 1896, when the largest area on record, 32,927 acres, was planted. In 1896 alterations were made in the Customs tariff as regards sugar, and also about that time there were great developments in the dairying industry on the northern rivers, both of which diverted attention from sugar-planting. After 1896 the area under cane steadily declined for five years, until in 1901 there were only 22,114 acres under cultivation. From 1901 the area remained practically stationary for five years at a little over 20,000 acres; there has been a further diminution, and in 1911 there were only 13,763 acres under cultivation.

In 1897 the highest production of 320,276 tons of cane was obtained; but the average production per acre was only 17·60 tons—with the exception of that of 1896 and of 1885, the lowest on record. The cane-disease, prevalent principally on the Clarence, caused the low averages during the period 1895-97, and in 1896 the crop was further damaged by frost. The comparatively low yields of 1899-1901 were due to unfavourable seasons. The area of cane cut during 1910-11 was 5,596 acres, with a total yield of 160,311 tons, or an average of 28·65 tons per acre. During the last ten years the average has been 22·17 tons per acre.

The county of Rous is the principal centre of cultivation, containing 6,586 acres devoted to the production of sugar—an area equal to nearly half the total acreage in the State under cane crops. The yield obtained in 1911 from 2,841 acres of productive cane amounted to 83,345 tons, showing an average of 29·34 tons per acre. In the county of Clarence cane is grown on 4,980 acres. In this, as in the other sugar-growing counties, the majority of the farmers cultivate sugar-cane in addition to other crops, or in conjunction with dairying, and only a few estates are devoted entirely to its production. Some planters have areas of 25 to 100 acres in extent under cane; but their number is limited. The yield in the county of Clarence last season was 54,949 tons, or an average of 27·60 tons per acre, cut on an area of 1,991 acres. In the county of Richmond, the area under sugar-cane was 2,197 acres, of which 764 acres were cut, giving a total yield of 22,017 tons of cane, or an average of 28·82 tons to the acre.

Sugar-cane is generally cut in the second year of its growth, the fields being replanted after they have given crops for three or four seasons; and as the cane has been planted at irregular intervals, the seasons of large production have sometimes been followed by small crops in the succeeding year. Sugar manufacturers invariably purchase the year's crop of cane standing, and cut it at their own cost. From plantations in full bearing the average weight of the cane cut varies from 25 to 32 tons, and the value received by the grower, exclusive of bounty on sugar grown by white labour, was, in 1910, about 10s. 11d. per ton of uncut cane. An additional 3s. per ton was paid for cutting, which, in most cases, was done by the growers. The field work on the sugar plantations of New South Wales has been performed generally by white labour, and even in 1901, when the Federal legislation in connection with the sugar industry was passed, the number of coloured labourers employed was not large.

The duty on imported cane sugar is £6 per ton, while the excise duty is fixed at £4 per ton; but from the beginning of the year 1907 a bounty of 6s. per ton of cane, calculated on cane giving 10 per cent. of sugar, was allowed on Australian sugar grown by white labour, the bounty being paid to the grower. The cost of growing may be assumed at 2s. 11d. to 3s. 5d. per ton of cane for white and black labour, respectively. The proportion of the total area which is cultivated by black labour has decreased from 10 per cent. in 1902-3 to $4\frac{1}{2}$ per cent. in 1910-11. The following statement shows during the last nine years the area cultivated and the sugar produced by white and black labour, also the total amount of bounty paid each year:—

Year ended 31st March.	*Area cultivated by—			Sugar produced by—			Amount of bounty.
	White labour.	Black labour.	Total.	White labour.	Black labour.	Total.	
	acres.	acres.	acres.	tons.	tons.	tons.	£
1903	21,591	2,466	24,057	19,434	1,526	20,960	36,333
1904	22,076	2,503	24,579	19,236	2,561	21,797	40,154
1905	19,114	2,411	21,525	17,812	1,838	19,650	36,107
1906	19,612	2,193	21,805	18,019	1,964	19,983	36,234
1907	18,645	1,956	20,601	21,805	1,613	23,418	42,790
1908	15,164	1,613	16,777	28,247	934	29,181	78,080
1909	15,545	1,436	16,981	14,351	964	15,315	40,687
1910	13,899	1,038	14,937	13,839	815	14,654	36,834
1911	13,756	654	14,410	17,936	892	18,828	45,730

* Including areas cut for green food.

The figures in the above table are supplied by the Customs Department, and differ in some years as regards the area cultivated from those in the preceding table. The figures agree as to the area cut for cane, but differ as regards the balance. In the last two years the difference is partly accounted for by the inclusion, in earlier table, of areas cut for green food, and in other years it is due probably to different methods and times of collecting the information.

The subjoined return of the number of sugar-cane farmers in New South Wales will be of interest:—

Year.	Employing White labour.	Employing Black labour.	Total Farmers.	Year.	Employing White labour.	Employing Black labour.	Total Farmers.
1906	1,405	122	1,527	1909	1,397	156	1,553
1907	1,387	192	1,579	1910	1,206	138	1,344
1908	1,378	164	1,542	1911	882	72	954

It will be noticed that farmers employing black labour in 1911 represented only 7·5 per cent. of the total.

In October, 1911, a Commission was appointed by the Commonwealth Government to inquire into and report upon the sugar industry in Australia, and more particularly in relation to (a) growers of sugar-cane and beet; (b) manufacturers of raw and refined sugar; (c) workers employed in the sugar industry; (d) purchasers and consumers of sugar; and (e) costs, profits, wages, and prices.

GRAPE VINES.

In almost every part of the State, with the exception of the sub-tropical portion and the higher parts of the mountain ranges, grape-vines thrive well, and bear large crops, equal in size, appearance, and flavour to the products of France, the Rhinelands of Germany, and Spain. The principal vineyards are situated in the valleys of the Murray and Hunter Rivers, where considerable expense has been incurred to introduce skilled labour, and to provide manufacturing appliances. The vine-growing and wine-manufacturing industries are in their infancy, but with a growing local demand, and with the establishment of a market in England, where the wines of New South Wales have gained appreciation, the future of grape culture appears to be fairly assured. At present the production is comparatively insignificant, as shown in the following table :—

Year ended 30th June.	Total area under vines.	Area under vines for wine-making only.	Production.		Year ended 30th June.	Total area under vines.	Area under vines for wine-making only.	Production.	
			Total.	Average per acre.				Total.	Average per acre.
	acres.	acres.	galls.	galls.		acres.	acres.	galls.	galls.
1861	1,584	622	99,791	160	1904	8,940	5,101	1,086,820	213
1866	2,126	1,243	168,123	135	1905	8,840	5,298	928,160	175
1871	4,504	2,371	342,674	145	1906	8,754	5,279	831,700	157
1876	4,459	3,163	831,749	263	1907	8,521	4,951	1,140,000	230
1881	4,800	2,907	602,007	207	1908	8,483	4,644	778,500	168
1886	5,247	2,876	555,470	193	1909	8,251	4,472	736,262	165
1891	8,044	3,896	842,181	216	1910	8,330	4,561	808,870	177
1896	7,519	4,390	885,673	202	1911	8,321	4,354	805,600	185
1901	8,441	4,534	891,190	197	Average for 10 years ended 1901				191
1902	8,606	4,889	868,479	178	" 10 " 1911				181
1903	8,790	5,041	806,140	160					

The production has increased slowly during the period under review, the total area planted being now 8,321 acres, of which 4,354 acres yielded 805,600 gallons of wine. The total number of vineyards in 1911 was 1,679.

The average area of each vineyard was 5 acres, and the area planted with vines still in an unproductive state was 803 acres. Vignerons consider 250 gallons per acre a good yield; but the average yield for New South Wales reached this figure only in one year since the establishment of the industry, viz., in 1876, with 263 gallons. The average yield in 1911 was 185 gallons per acre, and during the last ten years 181 gallons. The best yield during the last twenty years was in 1892, when it was 237 gallons per acre. Wine produced in New South Wales during the year 1911 was valued at £55,380, and brandy distilled by vignerons for fortifying purposes at £3,500.

Notwithstanding the acknowledged excellence of the wines, the export for the State has not yet reached an important figure. Among the causes which retard the acceptance of Australian wines in English markets may be mentioned the practice of shipping the product at too early an age, and the impossibility of obtaining from the shippers details respecting the vintage of any particular wine. Foreign experts also find fault with the method of casking; and there is no doubt that the success of New South Wales as a wine-exporting country will depend on the adoption of more advanced methods; and on the enterprise of vignerons in properly advertising the merits of their productions.

The desire of the Government to extend the application of the most scientific methods in connection with wine-making and the general cultivation of the vine, and to extirpate the phylloxera disease, has led to the appointment of an expert, under whose direction inspectors have been engaged vigorously dealing with infected vineyards, and Viticultural Stations have been established at Howlong, near Albury, and at Raymond Terrace, in the Hunter Valley, for the propagation of resistant stocks, and for conducting various experiments in connection with wine-growing.

Phylloxera has not affected the Hunter Valley District, and the station at Raymond Terrace was established to supply the demands of the clean districts. The institution has been started in an extremely sandy soil, in which vines are absolutely immune from this disease.

The culture of grapes is not restricted to the production of fruit for the purposes of wine manufacture only, as a considerable area is devoted to the cultivation of table-grapes, particularly in the neighbourhood of Sydney, and in Ryde, Parramatta, and other districts of Central Cumberland. The extent of country devoted to this branch of the industry in 1911 included 2,880 acres, with a production of 3,914 tons of grapes, with an average of 1.36 tons of fruit per acre.

Although there is a large local demand, and a possibility of an export trade for raisin fruits, no extensive effort has been made in that direction. In 1911 there were 284 acres cultivated for drying purposes, and the yield was 2,656 cwt. At the Wagga and Hawkesbury experiment vineyards, raisins and sultanas are dried every season and placed on the local market, where they are regarded as equal in every respect to the imported article.

The cultivation of vines is also conducted at the Yanco Irrigation Farm which has been established for the education of settlers to be placed on the land within the operations of the Burrinjuck irrigation scheme.

ORCHARDS.

The cultivation of fruit does not receive the full attention it deserves, although the soil and climate of large areas throughout the State are well adapted to fruit-growing. With these areas and with climatic conditions so varied, ranging from comparative cold on the high lands to semi-tropical heat in the north coast district, a large variety of fruits can be cultivated. In the vicinity of Sydney, oranges, peaches, plums, and passion-fruit are most generally planted. On the tableland, apples, pears, apricots, and all fruits from cool and temperate climates thrive well; in the west and south-west, figs, almonds, and raisin-grapes can be cultivated; and in the north coast, pineapples, bananas, and other tropical fruits grow excellently.

The cultivation of citrus fruits has been undertaken largely in the districts adjacent to the metropolis. The first orange groves were planted near the town of Parramatta, and soon spread to the neighbouring districts of Ryde, Pennant Hills, Lane Cove, the whole of Central Cumberland, the valleys of the Hawkesbury and Nepean Rivers, and the slopes of the Kurrajong Mountains.

In the collection of statistics of citrus and other fruit orchards during the year 1909-10 a new system was adopted by which the area under each kind of fruit-trees, productive and non-productive, may be ascertained with accuracy. Under the system previously in vogue there is no doubt that, in mixed orchards, some of the area devoted to citrons was included with other fruits, and that a proportion of the unproductive area was returned as productive. Statistics relating to this branch of fruit-culture

since the year ended 31st March, 1891, are shown in the subjoined statement:—

Year ended 31st March.	Area under cultivation.			Production.	
	Productive.	Not yet bearing.	Total.	Total.	Average per acre.
	acres.	acres.	acres.	dozen.	dozen.
1891	8,737	2,551	11,288	11,562,000	1,058
1896	8,759	3,197	11,956	5,954,940	680
1901	11,013	3,952	14,965	6,486,276	589
1902	11,670	4,091	15,761	7,254,552	622
1903	12,550	3,657	16,207	5,092,392	406
1904	13,418	3,310	16,728	7,841,544	584
1905	14,486	2,918	17,404	7,918,380	547
1906	15,054	2,795	17,849	8,864,928	589
1907	15,173	2,582	17,755	7,837,488	516
1908	16,430	2,087	18,517	12,957,216	789
1909	16,570	2,040	18,610	7,847,580	474
1910	17,214	2,644	19,858	12,501,072	726
1911	17,465	2,643	20,108	14,783,064	847

In 1879 the area under oranges and lemons was 4,287 acres; in 1911 this had increased to 20,108 acres, of which 17,465 were productive. The latest production was equal to 847 dozen per acre—during the last ten years the average yield being 624 dozen. It is estimated that over 3,000 dozen of fruit to the acre can be obtained during an average season from fair-sized trees in full bearing, and it is, therefore, probable that the figures returned by the growers include the production of a considerable number of young trees. The number of orangeries cultivated during the year 1911 was 4,799, and of these the average area was 4·2 acres.

The production of oranges has attained such proportions that the growers are obliged to seek markets abroad for the disposal of their crop, as the supply, both in New South Wales and in the adjacent States, in some seasons, exceeds the demand. The principal market outside Australia is in New Zealand. Efforts are being made to establish a trade with the United Kingdom and America, and in view of the success that has been attained in other countries in carrying these fruits long distances by sea, there is reason to hope that a profitable export trade in Australian fruits may be developed.

The following table shows the area under orchards and fruit-gardens, exclusive of orangeries, together with the total value of each year's yield, since 1891:—

Year ended 31st March.	Area of productive fruit-gardens and orchards.	Area of fruit- gardens and orchards not bearing.	Total area culti- vated for fruit- gardens and orchards.	Total value of the production of fruit-gardens and orchards.	Approximate average value per acre.
	acres.	acres.	acres.	£	£ s. d.
1891	16,081	6,274	22,355	213,934	13 6 0
1896	20,635	8,145	28,780	130,735	6 7 0
1901	25,766	5,503	31,269	270,081	10 10 0
1902	27,044	5,302	32,346	155,579	5 15 0
1903	27,161	4,216	31,377	173,535	6 8 0
1904	27,576	4,012	31,588	211,318	7 13 0
1905	26,196	3,740	29,936	162,670	6 4 0
1906	25,189	3,577	28,766	189,195	7 10 0
1907	24,708	3,714	28,422	230,135	9 6 0
1908	23,992	4,205	28,197	153,110	6 8 0
1909	23,170	4,100	27,270	231,370	10 0 0
1910	20,060	5,799	25,859	233,050	11 12 4
1911	20,498	6,748	27,246	272,290	13 5 8

There has been no increase in the area under orchards and fruit-gardens of recent years. Since 1891 the increase has been 4,891 acres; but since 1897 there has been a decrease, due to the subdivision of orchards for residential and other purposes. Nearly one-third of the area under orchards is in the county of Cumberland, the actual acreage in 1911 being 8,615. From 1890 to 1893 the average production was valued at from £12 to £13 per acre, but during the last ten years the average has been only £8 5s. per acre.

The fruit-production of New South Wales, with the exception of oranges, is far behind local demands. The State is, therefore, obliged to import large quantities, the greater portion of which could be successfully grown within its own boundaries. Leaving out of consideration the large importations of tropical fruits from Fiji, the South Sea Islands, and Queensland, the introduction of fruit from abroad is still greatly in excess of the possibilities of local production.

MARKET-GARDENS.

In 1911 there were in the State 3,598 holdings, comprising 9,813 acres, cultivated as market-gardens, the average size of each garden being 2·7 acres. The value of the production for the year was £333,690. More than one-third of the total area laid down for market-gardens is in the county of Cumberland. Until recent years the industry was almost entirely in the hands of the Chinese, but latterly it has received much attention from European farmers in the districts in the vicinity of the metropolis.

The subjoined statement gives the number and area of market-gardens, and the value of the produce since the year 1901 :—

Year ended 31st March.	Market-gardens.	Area.	Value of production.		
			Total.	Average per acre.	
	No.	acres.	£.	£	s. d.
1901	2,266	7,764	192,450	24	15 9
1902	2,215	7,834	213,462	27	5 0
1903	2,283	8,263	225,061	27	4 9
1904	2,559	8,754	219,040	25	0 5
1905	2,783	8,827	229,530	26	0 1
1906	2,842	9,119	248,678	27	5 5
1907	3,437	9,550	258,000	27	0 4
1908	3,324	10,052	262,786	26	2 10
1909	3,462	10,331	298,740	28	18 4
1910	3,808	10,254	311,580	30	7 9
1911	3,598	9,813	333,690	34	0 1

One branch of gardening—tomato culture—has not received sufficient attention. As this cultivation entails light labour, and is particularly remunerative, the vegetable could be grown by persons unaccustomed to heavier labour on farms, and it is surprising that the industry should have been so long neglected. In 1911 there were 631 acres, outside market gardens, under cultivation for tomatoes, which yielded 107,426 half-cases, or 170 half-cases per acre.

MINOR CROPS.

In addition to the crops already specified, there are small areas under various kinds of products—as, for instance, pulse and gourd crops.

Pulse.—During the year 1911 there were 275 acres under crop for peas and beans, which gave a total yield of 6,987 bushels, being 25·4 bushels per acre.

These peas and beans were grown mainly as hard fodder for horses and pigs, and must not be confounded with the peas and beans cultivated in the kitchen and market gardens for table use as green vegetables.

Gourd Crops.—The area devoted to pumpkins and melons during the year 1911 was 5,070 tons, and the yield 19,753 tons, being 3·9 tons per acre. The principal places of cultivation are the maize districts and the metropolitan county.

Pumpkins are grown for table use as vegetables; but are also used extensively as fodder for cattle and pigs. The number of acres under gourd-vines mentioned above is somewhat below the true figures, as crops of pumpkins and melons are sometimes raised in orchards and vineyards amongst the fruit-trees and vines, and in market gardens, and particulars respecting the production are not returned.

Other branches of agriculture have hardly been considered, although, no doubt, as the rural population increases, their importance will gain recognition. Little has been attempted in the cultivation of any of the following, although experiment has proved that they can all be raised in the State:—Olives, castor-oil plant, flax, ramie fibre, hops, silk, coffee, and cotton. The varieties of the soil and of climate are so diverse that almost any kind of produce can be raised, and there is every reason for hope for future extension.

The olive has been grown successfully in South Australia, and could be cultivated in districts with suitable temperature in New South Wales.

The castor-oil plant grows luxuriantly in the humid coastal districts.

A most valuable crop is flax, and more persistent efforts should be made to introduce it.

Hops have been cultivated to a slight extent in the neighbourhood of Orange; other suitable districts are Armidale, Goulburn, and Cooma.

MACHINERY AND LABOUR.

The estimated value of the machinery in use in farming operations is £3,414,621, distributed as follows:—

Division.	Area farmed.	Value of machinery.	Value, per acre.
	acres.	£	£
Coastal Division	307,225	422,044	1·37
Tableland	395,634	483,259	1·22
Western Slopes	1,511,929	1,453,807	·96
Western Plains and Riverina ...	1,152,000	1,005,682	·87
Western Division	15,133	49,829	3·29
Total	3,381,921	3,414,621	1·01

The following statement gives a comparative view of the machinery used and the labour employed in agricultural pursuits during the last seven years:—

Year.	Area farmed.	Machinery.	Persons Employed.			Machinery, per acre.	Labour, per acre.
			Males.	Females.	Total.		
	acres.	£				£	No.
1904	2,672,973	2,459,346	63,111	5,742	68,853	·92	·022
1905	2,838,081	2,557,262	62,419	5,008	67,427	·90	·024
1906	2,824,211	2,645,980	63,448	5,715	69,163	·94	·021
1907	2,570,137	2,599,156	57,327	5,385	62,712	1·01	·024
1908	2,713,971	2,851,974	55,324	5,409	60,733	1·05	·022
1909	3,174,864	3,042,364	59,541	4,770	64,311	·96	·020
1910	3,381,921	3,414,621	59,091	5,228	64,319	1·01	·019

In stating the number of persons employed in agricultural pursuits, it must be remarked that these figures are obtained from returns supplied by the farmers; but in cases where agriculture is carried on conjointly with other rural industries, it is difficult to differentiate, and persons

may be returned as engaged in agriculture in one year and in other rural occupations in another year. The decrease shown in agricultural labour is probably explainable in this manner. A comparison of the value of farming implements and machinery in use during each year since 1901 in each of the rural industries is shown in the following table.

Year.	Farming.	Dairying.	Pastoral.*	Total Value.
	£	£	£	£
1901	2,677,902	234,846	446,151	3,358,899
1902	2,236,850	254,678	660,447	3,151,975
1903	2,368,072	300,107	710,885	3,379,064
1904	2,459,346	345,208	779,244	3,583,798
1905	2,557,262	365,436	1,120,911	4,043,639
1906	2,645,950	417,006	1,082,043	4,145,029
1907	2,599,156	443,197	1,110,953	4,153,306
1908	2,851,974	458,720	1,256,857	4,567,551
1909	3,042,364	510,852	1,332,427	4,885,643
1910	3,414,621	534,745	1,483,081	5,432,447

* This includes in many cases, Agricultural Implements used on Pastoral Holdings.

The labour employed in all rural industries is discussed in the chapter, "Employment and Arbitration."

FERTILISERS USED ON LAND.

The importance of using fertilisers on agricultural land cannot be over-estimated; but, as may be seen from the following statement, the benefits derivable are not yet appreciated by the farming community, as the quantity is still comparatively small.

The return shows the area of land and the quantity of manure which has been used during the year 1910:—

Divisions.	Natural (Stable-yard, &c.).		Artificial (Superphosphates, Bonedust, &c.).	
	Area.	Quantity used.	Area.	Quantity used.
Coastal—	acres.	loads.	acres.	cwt.
North Coast	27	196	235	460
Hunter and Manning	1,044	14,069	1,028	3,898
Metropolitan—County of Cumberland	4,102	128,526	11,487	86,909
South Coast	3,551	18,509	3,948	11,477
Total	8,724	161,300	16,698	102,744
Tableland—				
Northern	97	1,787	311	408
Central	831	7,762	17,349	14,099
Southern	550	6,535	3,440	4,258
Total	1,478	16,084	21,100	18,765
Western Slopes—				
North	1	10	.....	.....
Central	269	2,424	54,492	21,469
South	43	1,118	379,940	149,373
Total	313	3,552	434,432	170,842
Western Plains and Riverina—				
North ... ..	.....	.....	.....	.....
Central	42	1,010	3,818	1,557
Riverina	823	3,272	542,770	206,170
Total	865	4,282	546,588	207,727
Western—				
East of Darling	52	454	217	244
West of Darling	25	532	44	20
Total	77	986	261	264
Total, New South Wales...	11,457	186,204	1,019,079	500,342

BEE-KEEPING.

The bee-keeping industry is closely associated with agriculture, but at the present time is of very small importance, but there is ample inducement for further expansion.

The production of honey and of beeswax varies considerably from year to year, as will be apparent from the attached table, relating to the last ten years :—

Year ended 31st March—	Bee Hives.		Honey.	Average Yield of Honey per Hive.	Beeswax.
	Productive.	Un-productive.			
	No.	No.	lb.	lb.	lb.
1902	42,174	10,915	2,259,177	53·6	51,735
1903	37,980	8,263	1,815,480	47·8	37,207
1904	45,094	13,236	2,147,295	47·6	49,589
1905	53,043	11,687	3,023,468	57·0	58,610
1906	36,589	12,043	1,841,236	50·3	39,620
1907	37,306	11,964	1,907,744	51·1	34,690
1908	53,240	15,148	2,660,363	50·0	48,427
1909	53,612	16,347	3,064,526	57·2	58,697
1910	47,807	17,992	2,066,330	43·2	53,006
1911	55,958	14,308	2,765,618	49·4	72,617

Owing to the unfavourable season, the yield was small during 1909-10, but there was an improvement during 1910-11.

The estimated value of the production of honey and beeswax in 1910 was £41,000, the production for each division being as follows :—

Division.	Honey.	Beeswax.
	lb.	lb.
Coastal Division... ..	1,487,954	34,904
Tableland Division	729,710	20,981
Western Slopes Division ...	470,491	14,816
Western Plains and Riverina Division.	71,913	1,846
Western Division	5,550	70
Total	2,765,618	72,617

IRRIGATION.

The provision of an adequate water supply for other than domestic purposes is essential to the well-being of all primary industries, and particularly in a country which is liable to dry seasons which affect extensive areas. Much of the area of the State receives an adequate and regular rainfall, but over a considerable extent of country all the factors exist which are requisite to success in agricultural pursuits, except a constant water supply. The recognition of the fact that the area suitable for cultivation might be largely extended by a comprehensive system of water conservation and irrigation has led the State to undertake various schemes in detached groups, which will constitute portion of the ultimate irrigation system necessary to serve the whole State. It is estimated that about 83,000 square miles in the North-western portion of New South Wales are within the artesian basin; and a number of bores have been sunk under the provisions of the Water and Drainage and other Acts. The majority of these bores are used for stock watering only, though there is no doubt that the water could be used on pastoral properties to ensure green food for lambs, and moderate the effect of drought; whilst in the country towns in these dry areas fresh supplies of fruit, vegetables, and dairy products could be obtained. The question of the permanency

of the artesian supply must be considered before any great quantity of water can be spared for irrigation, as it is estimated that the flow which will provide water for stock over 70,000 acres of country would only irrigate 500 acres of the dry Western plain. Under present conditions, during the winter months there is usually a surplus, which could be used for irrigation; but during a dry summer, when an irrigated area would be most valuable, the supply is barely sufficient for the stock.

Experiments in the use of artesian water for cultivation have been conducted at the State Farms at Moree and Pera Bore, and have proved that the bore water can produce satisfactory crops for a considerable number of years. The alkali in artesian water, which, if applied continuously, has a deleterious effect on the fertility of the soil, can be neutralised, and even made into a valuable fertiliser, by the addition of nitric or sulphuric acid; and the question as to whether it would be profitable to do so will be demonstrated by the operations at Pera Bore. Artesian water will also be used in agricultural experiments at the Demonstration Farm opened in 1911 at Coonamble.

The exploitation of the artesian supply by no means represents the extent of the efforts at water conservation. New South Wales possesses, outside the boundaries of the artesian supply, river basins eminently adapted for storage purposes. The most important work of this type is the scheme now being carried to completion to conserve and utilise the vast quantities of water which annually flow down the Murrumbidgee River. The present scheme deals only with the lands on the northern side of the river, but it will ultimately be extended to supply the country on the southern side.

The main features of the work include a storage dam across the Murrumbidgee to retain the floodwaters, which will be released for use lower down the river during the dry summer months; a movable diversion weir, about 220 miles below the dam, to turn the required amount of water from the river into the main canal; a main canal, leaving the river near the weir; a main branch canal; and a series of subsidiary canals and distributing channels through the area to be irrigated.

The site of the storage dam is at Burrinjuck, 3 miles below the confluence of the Murrumbidgee and Goodradigbee Rivers. The dam is being constructed of cyclopean masonry and concrete, and will be high enough to conserve a depth of 200 feet of water immediately above it. At the end of June, 1911, the wall had reached a height of about 102 feet. The reservoir will have a capacity of 33,381 million cubic feet, the catchment area being about 5,000 square miles, drained by three principal streams—the Murrumbidgee, Goodradigbee, and Yass Rivers—up which the water will be backed, when the dam is full, to distances of 40 miles, 15 miles, and 24 miles respectively. Direct communication between Burrinjuck and the Main Southern railway has been provided by the construction of a 2-foot gauge line from Goondah, a distance of 28 miles.

The diversion weir being designed for irrigation purposes the supply is regulated, in the first place, from Burrinjuck Dam, and then at the weir, by means of sluices. The weir is situated at Berembé, about 40 miles by river and 19 miles in a direct line above the town of Narrandera. It is founded on a solid granite bar extending across the river, and has a length over all of 270 feet between abutments, divided into a sluiceway 40 feet wide in the clear; a lock chamber, 40 feet wide, capable of taking barges up to 100 feet in length; and 55 movable wickets, manipulated from a punt moored up-stream. The weir and regulating works have been completed.

The main canal branches from the river just above the weir, and, after passing through Narrandera, will continue in a north-westerly direction,

skirting the hills abutting on the plains, to a total length of about 132 miles. The course of the main branch canal runs for a length of 34 miles towards Hay, parallel with the Narrandera-Hay railway.

At 30th June, 1911, 72 miles of the main canal had been completed as well as portions of the principal branches.

This scheme will command an area of about 357,000 acres of high-class irrigable land suitable for intense cultivation, and in addition, an area of about 1,000,000 acres of pastoral lands, which will be supplied with water for stock purposes, and for the irrigation of 1 acre in every 30 for fodder crops. Considerable areas are eminently suitable for irrigation, and, in the opinion of the experts of the Department of Agriculture, could be profitably worked in small areas devoted to mixed farming, dairying, and stock raising, or fruit-growing and drying.

The Murrumbidgee Irrigation Act, passed in December, 1910, constituted a Trust for the administration of the scheme, and provided the necessary authority for the acquisition of land, construction of improvements, levying rates, and generally for administering the irrigation areas and work.

The first subdivision, comprising about 14,000 acres, will be available for settlement early in 1912; further areas have been subdivided and should be open for settlement at an early date. Townships will be established at Yanco and Mirrool, the Trust being empowered to construct streets, and to provide water supply and other services.

A State irrigation farm has been established at Yanco, near Narrandera, for experimental work and for the guidance of the future settlers; the first irrigation was undertaken only in October, 1908, and satisfactory results are anticipated. During the year ended 31st March, 1911, there were 85 acres under cultivation, of which 56 acres were planted with cereals and hay, and 20 acres with grapes and other fruit.

In addition to the Murrumbidgee scheme, preliminary work has been done in the way of surveys, observations, gauging, and exploration to discover the extent to which the waters of other rivers may be utilised, and investigations have been conducted on several storage sites and irrigable areas on the Lachlan and Macquarie Rivers.

Other irrigation settlements have been established at Hay and at Wentworth. In the Wentworth irrigation area, embracing 10,600 acres, 1,455 acres have been subdivided, of which 936½ acres are held under lease by fifty-two settlers; the balance is still available for lease. During 1910-11, 620 acres were under cultivation, the greater part being devoted to fruit-trees, oranges, grapes, sultanas, and currants. In this area is instituted a dual scheme of irrigation and intense cultivation of small areas, and the results of the experiment will be regarded with interest, and of exceptional value from the educational standpoint. The pumping machinery consists of two suction-gas plants of 121 brake horsepower working two centrifugal pumps, with an average capacity of 5,000 gallons per minute. The length of the main channels is about 4½ miles, and of subsidiary channels 4½ miles; total length, 8½ miles. The land is leased for thirty years, the rent varying from 1s. to 5s. per acre; the rate for water is 20s. per acre. This area is controlled by the Minister for Agriculture.

The Hay irrigation area consists of about 4,000 acres, and is controlled by a Trust, appointed in 1897. The area held and used for irrigation purposes is 800 acres by eighty-nine holders, who lease the land for ninety-nine years at rentals varying from 6s. to 10s. per acre; the water rate is 20s. per acre. The pumping is by steam, and the total length of channels is about 11½ miles.

DEPARTMENT OF AGRICULTURE.

The Department of Agriculture was created in 1890 to advance the interests of the farmers and fruit-growers of New South Wales. The Department deals with all matters essential to agriculture, and one of its chief aims is to collect information by scientific investigation and practical experiments, to be placed at the disposal of the farming community, regarding the causes of failure, improved methods of cultivation, means of combating pests, effects of fertilisers, drainage and irrigation, the introduction of new plants, uses of new implements, utilising surplus products, and facilitating the transport of produce to the best markets. The Department of Agriculture, with Stock branch, and the Forestry Department, is administered by a Minister of the Crown. In 1908 it was separated from the Department of Mines, with which it had previously been conjoined. The scientific staff has been thoroughly organised, and experts have been appointed to direct operations in the different branches, such as viticulture, agricultural chemistry, entomology, botany, irrigation, fruit-growing, veterinary science, dairying, sheep and wool, cold storage and export, and forestry; and there are also a number of experimentalists, inspectors, and instructors. The Agricultural College and experiment farms are also controlled by the Minister for Agriculture.

The officers of the Bureau of Microbiology co-operate with the agricultural experts in all investigations relating to animal pathology, plant pathology, and bacteriology of soils, milk, cheese, wines, and other products. A large number of bulletins for the guidance of various classes of rural workers are issued, and all publications of the Department are supplied free to persons engaged in rural industry in this State. In addition to answering all inquiries for advice or assistance sent to the Department, the officers visit various parts of the country throughout the year to give demonstrations for the farmers, conduct experiments, and advise them regarding agricultural methods generally.

The *Agricultural Gazette* of New South Wales is the official organ of the Department. The primary aim of this publication, which is issued monthly, is to present to the farmers of the State the results of scientific researches and investigations of the official experts, and to give practical advice on the economic results dictated by these investigations, and to supply seasonable notes on matters of scientific, practical, and industrial interest.

Arrangements were made in 1910 to supply for publication in the country newspapers weekly notes of the investigations and educational operations of the Department regarding the improved methods of agriculture, dairying, stock-raising, &c.

The revenue and expenditure of the Department of Agriculture for the year ended 30th June, 1911, were as follows:—

<i>Revenue.</i>		£	<i>Expenditure.</i>		£
Agricultural College, Experiment Farms, &c.	24,327		Departmental	35,000	
Repayments for Seed-wheat ..	3,044		Subsidies and Grants ..	21,889	
Fees for fumigation, &c. ..	9,384		Miscellaneous	3,262	
Botanic Gardens, &c. ..	331		Agricultural College, Experiment Farms, &c. ..	81,718	
Irrigation Areas	943			141,869	
Miscellaneous	56		Less Refunds	2,981	
Stock Branch	4,979			138,888	
Forestry	90,044		Forestry	26,490	
	133,108		Pastures Protection ..	2,491	
			Stock and Brands ..	25,785	
Less Refunds	111		Botanic Gardens, &c. ..	20,972	
			Export and Cold Storage ..	592	
			Commercial Agents ..	2,758	
Total	£132,997		Total	£217,976	

EXPERIMENT FARMS.

With the combined objects of obtaining a thorough knowledge of local conditions and of affording an education in agriculture on scientific and local bases, the Government has established agricultural colleges, experimental farms, and farmers' experiment plots, and has engaged agricultural lecturers and experts to guide and assist the farmers.

The agricultural and experiment farms in operation during the year ended 31st March, 1911, numbered fourteen, and comprised the Hawkesbury Agricultural College, eight experiment farms, one demonstration farm, a demonstration orchard, a dairy stud farm, and two viticultural stations; an additional experiment farm was opened in March, 1911. The total area of these farms was 17,240 acres, of which 3,899 acres were under cultivation, the areas for various crops being as follows :—

	acres.
Cereals and hay	1,858
Fruit-trees and vines	355
Green fodder	961
Sown grasses and forage plants	571
Root and other crops	154

Much of the remaining area allocated to these farms is cleared only partially; portion of it is under fallow, and portion ready for ploughing.

The Hawkesbury Agricultural College provides accommodation for resident students, and gives theoretical and practical instruction in a three-years' course, which embraces every department of agriculture. Instruction is also given in dairying, pig-raising, and poultry-breeding. Experimental research work is conducted in connection with cereal and other crops, and with fertilisers, and soil culture, &c. Necessarily, all subsidiary branches of farm labour are taught, including blacksmithing, carpentering, sheep-killing, bee-keeping, and other allied occupations. An area of 116 acres has been leased on the banks of the Hawkesbury River, on which a complete system of irrigation is being carried out. The fees payable are £30 for the first year, £20 for the second, and £10 for the third. Special courses of instruction are also provided, notably at the Farmers' Winter School and Public School Teachers' Summer School. During the year ended March, 1911, there were 154 regular students in attendance, and 1,078 acres out of the total of 3,551 acres attached to the College were under cultivation.

The experiment farms have been established in various districts of the State, and the experiments and education vary with the particular climatic conditions. At Wagga farm, the specialties are the growing of seed wheats, and fruits for drying, and the breeding of dairy cattle (notably Jerseys) and swine. The area under cultivation is 939 acres out of 3,228 acres. There is accommodation for fifty-three students; the course is for two years. A fee of £15 is charged for the first year, the second being free to students who make satisfactory progress.

At Bathurst, particular attention has been devoted to the orchard, and to mixed farming and irrigation. A demonstration area of 180 acres has been set apart, the object of which is to show the profit, on commercial lines, accruing from the results of past experiments. There were thirty-three students in 1910-11, the fees charged being similar to those at Wagga.

Practical dairy instruction is provided at two farms in the coastal division. Wollongbar Farm is utilised in dairy-farming suitable for the North Coast district; grasses and fodder plants are grown, and the breeding of dairy cattle and pigs is conducted. High-class stock is bred at

the Berry Stud Farm, situated in the centre of the South Coast dairying district. It is intended to establish a dairy school at Berry Farm, allowing for special courses of veterinary instruction.

At the Grafton Experiment Farm maize and potatoes are cultivated, and dairying and pig-breeding carried out. Accommodation has been provided with the view of training students in mixed farming suitable for sub-tropical districts. Special attention is given to maize in establishing new varieties and in experiments regarding methods of cultivation and fertilisation.

The Glen Innes Farm is utilised for mixed farming suitable for the Northern tablelands. Cowra is used as a wheat-breeding and experimentation station; special courses of training are arranged for the scientific cadets and junior experimentalists of the Department of Agriculture, and an Apprentice Farm School will shortly be opened.

At Pera Bore, the Irrigation Orchard, experiments have been made with bore water in agriculture, and with methods of neutralising the chemical constituents in the water.

At Howlong and at Raymond Terrace, viticultural stations are affording instruction and advice in regard to vine-growing. Phylloxera-resistant rootlings and cuttings are grown and supplied to vine-growers to replant vineyards destroyed on account of disease.

At Yanco, preparations are being made by experimental irrigation work, for the advent of large numbers of settlers on the Murrumbidgee Irrigation Area, which, when completed, will serve to irrigate a large extent of territory in the vicinity.

At the Nyngan Demonstration Farm, established in 1909, investigations into problems of dry-farming are continued which had been conducted previously at Coolabah. The educational work will be directed towards combining wheat-farming in a rotation with sheep. The operations at Coolabah were abandoned on account of its inaccessibility, because of the long distance from any railway.

The Dural Demonstration Orchard is used in carrying out experiments in fruit-growing and combating diseases, and for the education of fruit-growers in the County Cumberland. Short courses of orchard and garden work are provided.

In March, 1911, a Demonstration Farm was opened at Coonamble for the application of the practical experience with regard to irrigation by artesian water gained at the Moree Experiment Farm, which was closed in 1910.

Apprentice Schools have been opened at Cowra, Yanco, and Dural, and arrangements are being made for similar schools at Glen Innes and Grafton Farms. The instruction at these schools will be entirely practical; the fee is £5 for six months, and a second half-year's maintenance and training may be given in return for apprentices' labour.

The value of plant and machinery on all these farms during 1910-11 was estimated at £10,270, being £2 12s. 8d. per acre under crop; exclusive of instructors, 180 persons were employed in addition to 244 students in attendance, making a total labour force of 424 persons, representing, approximately, one person to every 9 acres cultivated. The value of the produce was assessed at £20,005, but as these farms are for experimental purposes only, the estimated monetary value of the products does not by any means represent its whole value.

In order to correlate the objects of the experiments conducted on the farms and to co-ordinate the methods employed, an officer has been appointed to supervise all scientific and experimental investigations.

A large number of farmers' experiment plots have been established throughout the State. These plots are cultivated by the owners under the supervision of the Inspectors of the Department of Agriculture, and are valuable mediums of practical education. By this means considerable information is gained with regard to improved varieties of grain, better methods of cultivation, comparative value of manures, and new crops for the respective districts.

A Dairy Science School for the instruction of factory managers and assistants was held at Port Macquarie in 1910. These schools are held periodically in dairying centres.

In a previous chapter, "Education," information relating to agricultural training in schools is given, and also regarding the Agricultural Bureaux which have been formed by the farmers in many districts of the State to advance the interests of persons engaged in rural industries.

FARRER SCHOLARSHIPS.

The Farrer Memorial Fund has been established by public subscription in honour of the late William J. Farrer, whose work in the production of new wheats has afforded great benefit to the industry. The interest accruing from the money, which has been vested in Trustees, is to be used for the Farrer Research Scholarship, the specific object of which is the improvement of wheat cultivation. The scholarship, valued at £90 per annum, will be granted to a candidate selected by the Trustees from applicants possessing one of the following qualifications:—

- (a) A graduate in Science, to pursue studies with original research in Cambridge University Laboratory, or elsewhere outside the State. In such a case, the revenue for two years may be given for one year's research.
- (b) Graduate or undergraduate, to pursue study of plant-breeding in University laboratories under supervision of Science Faculty.
- (c) Student who has taken diploma from Hawkesbury Agricultural College, or similar institution, to pursue study of plant-breeding in field or in other approved way.
- (d) A young farmer, or other person, possessing necessary qualifications and aptitude for investigating this subject in the field under supervision of the Trustees.

The selected scholar shall present his results at the close of the year in the form of a paper to be published by the Trustees. At the end of the year the holder of the Scholarship may be re-appointed or a new selection made.

The Government Farrer Scholarship is offered for competition amongst students wishing to enter the Hawkesbury Agricultural College with a special view to study wheat cultivation. The value of the Scholarship is £91, and it will be awarded by competitive examination, and will provide for the full education of the recipient during the three years' course, for the purchase of books and apparatus, and the payment of sports, medical, and other fees. The Trustees of the Farrer Memorial Fund are specially authorised to give priority in the matter of the Farrer Research Scholarship to a Government Farrer scholar at the close of his College course, if he shows special aptitude for research work in connection with wheat cultivation.

The *Daily Telegraph* Farrer Scholarship consists of a grant of books, apparatus, &c., to the value of £10, given each year by the *Daily Telegraph* Newspaper Co., Ltd., to the best wheat student at the Bathurst or Wagga Experiment Farm.

AGRICULTURAL SOCIETIES.

A number of Agricultural Societies have been formed throughout the State mainly for the purpose of holding shows and exhibitions of agricultural, horticultural, and pastoral products, of live-stock, machinery, and implements, arts, and manufactures, and for other purposes relating to rural industries. The exhibitions assist rural development by maintaining a high standard of products and other exhibits for successful competition for prizes, and by familiarising the people with modern methods and appliances. The subscriptions of members are augmented by Government subsidies paid at the rate not exceeding 10s. in the £ on prizes awarded for *bonâ fide* agricultural and other approved exhibits and competitions. At 30th June, 1911, there were 153 Agricultural Societies registered for subsidy. During the year 1910-11, an amount of £16,470 was paid to 135 societies, whose membership was 29,938. The members' subscriptions amounted to £24,655; the total value of prize money was £50,050, of which £36,054 was subsidisable. In addition special grants, valued at £5,814, were paid to sixty-three societies, so that the total amount of financial assistance paid by the Government during the year ended 30th June, 1911, was £21,888.

The Agricultural Societies have been given statutory power to raise money for the improvement of their grounds upon the security of the show grounds.

A system of National Shows was initiated by which a special grant of £500 was payable to a show in each year to be held, as decided by the societies, in one of the eight districts into which the State was divided. The first National Show was held at Berry, in the South Coast district in 1908, the second at Glen Innes, in the Northern Tableland, and third at Lismore, in the North Coast in 1910. The system has since been abolished.

CO-OPERATION OF AGRICULTURISTS.

Endeavours are being made, through the agency of the Agricultural Bureaux, to encourage co-operative effort amongst agriculturists. Notable examples of its success are found in this State in the dairy factories, and in South Australia, where a large proportion of the exportable wheat is handled by a co-operative union. In addition to the advantages of co-operation as a means of successful marketing of produce, the principle can be extended to the purchase of materials, manures, machinery, and seed. The farmers could combine for the joint-ownership of labour-saving machinery and stud-stock, for herd-testing, and for insurance, and, as a body, would be able to obtain concessions from manufacturers, agents, &c., and as regards freight which, as individuals, they could not procure.

The matter has been brought under the notice of the Agricultural Bureaux for general discussion, and in order that the most suitable method of applying it to local requirements may be decided.

STATE ADVANCES TO SETTLERS.

To meet the demand for capital, and impelled by the necessity for affording assistance to settlers whose prospects had been affected by the prevalent drought conditions, the Government inaugurated a system in 1899, by which advances are made to settlers on the basis of the French *Crédit Foncier*, at rates of interest and of repayment which are intended to be available for the benefit of every settler offering adequate security. The original Act of 1899 received several amendments, till finally, in 1906, the powers of the Advances to Settlers Board have been transferred

to the Commissioners of the Government Savings Bank of New South Wales, and the maximum and minimum advances are fixed at £2,000 and £50 respectively.

Up to 31st December, 1910, 9,114 advances, total £1,617,192, were made to settlers, averaging £177 per loan, of which 5,455, representing £689,106, have been repaid, leaving 3,659 advances current at that date, the average balance of principal being £254 per loan.

The operations of the bank, relating to advances to settlers, for the last four years, were as follow :—

Year.	No.	Total Amount.	Average.
<i>Advances made.</i>			
		£	£
1907	424	106,025	250
1908	822	273,292	332
1909	778	300,228	386
1910	658	254,339	387
<i>Repayments.</i>			
1907	777	84,255	.....
1908	963	104,725	.....
1909	666	95,554	.....
1910	622	123,005	.....
<i>Balances Repayable.</i>			
1907	3,652	423,511	116
1908	3,511	592,078	169
1909	3,623	796,752	220
1910	3,659	928,086	254

The Commissioners are empowered to make advances upon mortgages of land in fee-simple or of land held under conditional purchase or lease, settlement purchase or lease, or homestead grant or selection. The advances are made for the purposes of repaying existing encumbrances, or of purchasing land or in order to effect improvements, utilise resources, or build homes.

The conditions under which loans are repayable vary according to the circumstances of the individual case; the maximum loan to any one person is £2,000; the rate of interest ranges between $4\frac{1}{2}$ and 5 per cent.; and the maximum period for repayment is thirty-one years.

It is clear that the system is intended to confer, and does afford material assistance to men who contemplate settling on the land, as well as to those already engaged in agriculture; but necessarily this system was not initiated to meet every instance in which farmers might require credit, usually in relatively small amounts, and for a comparatively short period.

To effect this object it seems necessary that a comprehensive system should be established in New South Wales, on the lines of a co-operative bank, or borrowers' association, with the sole object of obtaining cheap credit for its members, with adequate protection of their security on the plan of the co-operative loan organisations which have been introduced satisfactorily in Europe, and of which the best example exists in the Raiffeisen banks of Germany, which represent the latest stage in the evolution from the early Crédit Foncier system.

The history of this evolution ranges through Germany, France, Italy, Switzerland, and Austria-Hungary; the first stage in the evolution is found in the German Landschaften established in the middle eighteenth century, when, in 1769, Frederick the Great obliged all noblemen holding land in Silesia to unite to form a loan society, to cope with an enormous

withdrawal of capital from agriculture. The whole property of the members was collectively liable for each loan made; and, passing the first stage, when the association merely brought intending borrowers in touch with possible lenders, later associations became true land banks, borrowing money by the issue of debentures secured by mortgages and by the joint liability of members, and issuing loans on mortgage to the landed proprietors composing the membership.

In the middle nineteenth century, after inquiry into the German institutions then existing, a law was passed in France, in 1852, by which the *Crédit Foncier de France* was established. This is on the principle of a joint-stock company, the funds being constituted partly of share capital and partly by the proceeds of debentures, and moneys received on deposit. The money thus obtained is used for loans on real property, the reduction of existing encumbrances, and the general development of agriculture, but advances are also made to public bodies and departments. The loans are usually for long terms, with easy repayments and low interest rates, and shareholders benefit by any profits.

This system did not, however, fulfil all the needs of the community, and in 1861, *La Société du Crédit Agricole* was formed also on the lines of a joint-stock company, to provide cheap loans for the smaller class of agriculturists; the Government guaranteed a minimum interest of 4 per cent. for five years for shareholders. Debentures were issued, deposits received, and current accounts opened; but the society's business was mainly discounting, and partly lending. The endorsement of an agent of the society or of a joint-stock company or local association working under its auspices was required on all negotiable instruments drawn by agriculturists; and, by the addition of the society's signature, the borrower could deal with the Bank of France. As a loan institution the society made advances on single signatures of the borrower, secured by material pledges. In 1876 it ceased operations, having failed to confine its business to agricultural requirements.

In 1884, Belgium established *Comptoirs Agricoles* for the purpose of dealing with loan proposals as agencies of the general savings banks, the deposits in which are used by the National Bank for the development of commerce. This system also has failed to obtain a full measure of success, because it could not reach easily its intended clients, nor could it secure satisfactory agents.

Following these attempts on joint stock lines came institutions established on a co-operative basis, classed after their founders, as *Schulze-Delitzsch* societies and *Raiffeisen* societies. The former societies were established with the primary objects of relieving borrowers from usurious interest rates, and of mitigating the tendency to ask for State aid. The first society was established in 1850, and within forty years the aggregate loans of existing *Schulze-Delitzsch* societies reached £100,000,000.

The first beneficiaries under this system were urban artisans, but its assistance was soon extended to agriculturists, who now form the bulk of its membership. Originally, the bases of the system were unlimited liability and a substantial share capital; but the condition of unlimited liability has now ceased to be essential. Seven members, male or female, with one share each, may form a society, of which the operations are, in practice, usually confined to a definite area. The articles of association are in accordance with law, and the society is controlled by an elected administrative directorate. The law requires a compulsory audit periodically. The funds are constituted partly by shares and partly by capital obtained from ordinary banks by discount or deposit; debentures are not issued. Advances are now made to members only, credit is personal,

based on surety, and no control is exercised in regard to the uses to which loans are put. The advances are of three types, being (a) advances on bills drawn by members and guaranteed by other members; (b) cash credits or overdrafts on the borrower's bond, with collateral security; and (c) ordinary bills of exchange. The period of loan does not usually exceed the period for which deposits are made, but loans are renewable; repayment by instalments is not acceptable; interest rates are about 7 per cent.; dividends are allowed to members, assisting to encourage deposits. The system has achieved considerable success and an extensive influence, but as its business is not exclusively agricultural development, it does not represent a perfect rural bank.

In 1864 the first Credit Union was established by Raiffeisen. The basis was unlimited liability of members; the share principle was rejected as uselessly hampering rural development; but being made compulsory by law, the share values were made as low as possible, and only one share was allowed to each member. Operations are confined to a limited area, thus ensuring intimacy amongst the members. The specific objects include the supply of raw materials, the sale of products, purchase of commodities, implements, and machinery for members, and assistance towards land purchase. All adults may become members, all administrative services of the elected directorate are gratuitous. Funds are supplied by borrowed capital, the share capital being insignificant; interest is paid to lenders or depositors, ranging about $4\frac{1}{2}$ per cent.; loans are made to members, usually on personal security for any term, and sureties are required; mortgage and cash credits are granted, but in every case the solvency of the borrower must be assured, and the loans are granted for useful and productive purposes. The loans are usually small; interest is generally 5 per cent., and a commission is charged which, in the aggregate, covers cost of administration. Financially, societies of this type have achieved marked success. Unlike the Schulze-Delitzsch societies, no dividends are paid, except trifling rates on shares. Net profits form a reserve fund, which, when large, may be drawn upon for some object of general utility.

The societies are grouped in unions under a central union for all Germany, which also promotes life assurance and assurance against loss; central banks have been established to regulate the finances of the unions, and in recent years the State has made advances of Government money available to the central banks of both the Schulze-Delitzsch and the Raiffeisen systems.

Other banks have been established which unite the characteristics of both these systems, of which an example is found in the Austrian Raiffeisen Union, and in the Luzzatti Popular Banks, and Wollemborg Agricultural Banks in Italy; thence the principles of co-operative agriculture have spread to other quarters of the world.

In Finland co-operative credit societies are conducted on general lines, in accordance with the principles of the Raiffeisen Banks, and their business is almost exclusively the supply of small sums to small farmers. In 1909 there were 384 of these funds, with 15,000 members, to whom loans were granted, amounting to £161,000, or about £10 15s. per member.

The local credit societies are affiliated to a central bank, which controls them and supplies them with capital. This central institute was formed in 1902, and carries on its operations by means of a loan of £160,000, and an annual subsidy of £800 granted by the State. In 1909, 340 co-operative societies joined the central institute, receiving £160,000 in loans.

SCOTTISH AGRICULTURAL COMMISSION.

In 1910-11 a party of Scottish agriculturists, twelve in number, visited Australia at the invitation of the Commonwealth Government for the purpose of studying the development of the rural industries in Australia, and of reporting to Great Britain as to openings for immigrants. Members of the Commission had previously been engaged in investigating the condition of rural industries in Canada, Ireland, and Denmark. Their report has been issued, and deals with every branch of rural work—agricultural, pastoral, and dairying, and should be of great value in spreading knowledge with respect to Australia, and thus inducing the immigration of many desirable settlers.

LAND LEGISLATION AND SETTLEMENT.

AREA OF NEW SOUTH WALES.

THE area of New South Wales, as stated in Part I of this Year Book, is estimated at 310,367 square miles, or 198,634,880 acres, being a little over two and a half times that of Great Britain and Ireland. Excluding the surface covered by rivers and lakes, the area within the boundaries of the State is 195,669,000 acres, or about 305,733 square miles, of which the greater portion has been alienated under various forms of tenure, classified as freehold or leasehold. The formal transference on 1st January, 1911, of 576,000 acres at Yass-Canberra to the Commonwealth Government as Federal Capital territory, reduced the land surface of the State to 195,093,000 acres.

RECENT LEGISLATION.

Following is a list of the various important enactments passed since the consolidation of the Statutes in 1896, relating to land settlement :—

Advances to Settlers	...	...	...	...	1899, 1902 (2)
Balranald Irrigation	...	...	...	...	1902
Barren Jack Dam and Murrumbidgee Canals Construction	...	...	...	...	1906
Blockholders	...	...	...	...	1901
Church and School Lands	...	...	...	...	1897, 1900
Closer Settlement	...	...	...	...	1902, 1904, 1906, 1907, 1909
Closer Settlement Promotion	...	...	...	...	1910
Crown Lands	...	...	...	...	1898, 1899, 1903, 1905, 1908, 1910
Crown Lands Improvement Purchase	...	...	...	...	1909
Department of Agriculture	...	...	...	...	1907
Dividing Fences	...	...	...	...	1902
Drainage Promotion	...	...	...	...	1901, 1902
Hay Irrigation	...	...	...	...	1902
Improvement Leases Cancellation	...	...	...	...	1906, 1908 (2), 1909
Inclosed Lands Protection	...	...	...	...	1901
Labour Settlements	...	...	...	...	1902
Murrumbidgee Irrigation	...	...	...	...	1902 (2)
Prickly-pear Destruction	...	...	...	...	1901
Western Lands	...	...	...	...	1901, 1905, 1908, 1909

EARLY ALIENATION.

From the early days of settlement until the year 1861 the Crown disposed of land, under prescribed conditions, by grants, and by sales, so alienating, by the end of 1861, an aggregate area of 7,146,579 acres, viz. :—

	acres.
1. By grants, and sales by private tender to close of 1831	3,906,327
2. " " in virtue of promises of early Governors made prior to 1831, from 1832-40 inclusive	171,071
3. " sales at auction, at 5s., 7s. 6d., and 10s. per acre, from 1832-38 inclusive	1,450,508
4. " " " " 12s. and upwards per acre, at Governor's discretion, from 1839-41 inclusive	371,447
5. " " " " 20s. per acre, from 1842-46 inclusive	20,250
6. " " " " and in respect of pre-emptive rights, from 1847-61 inclusive	1,219,375
7. " grants for public purposes, grants in virtue of promise of Governor made prior to the year 1831, and grants in exchange for lands resumed from 1841-61 inclusive	7,601

Total alienated on 31st December, 1861 ... 7,146,579

Certain grants were made under special enactments, and instructions from the Imperial authorities to Sir Thomas Brisbane, then Governor, directed him to reserve one-seventh of the Crown lands in each county for Church and School purposes

RESERVES.

The total reserves up to the year 1832, stated at 443,486 acres, were, by subsequent surveys, shown to be actually 454,050 acres, and did not aggregate the proportional area specified in the instructions. These lands were administered by the Clergy and School Land Corporation until its abolition by Order of Council on the 4th February, 1833, when the lands reverted to the Crown, and an agent was appointed to determine the claims of purchasers, to whom deeds of grant were made, and confirmed by a subsequent Act of Council, dated the 5th August, 1834.

Classification of Reserve Lands at 30th June, 1911, in the various Land Board Districts shows as follows:—

Class of Reserves.	Area. acres.
Travelling Stock	6,278,517
Water	2,973,694
Mining	1,269,278
Forest	6,492,519
Temporary Commons	573,183
Railway	371,765
Recreation and Parks	218,839
Pending Classification and Survey	3,675,468
From Conditional Purchase, within Gold-fields	667,288
Miscellaneous	4,115,748
Total	26,636,299

Of the early reserves mentioned above, 171,746 acres were alienated up to the year 1880, when, by the Church and School Lands Dedication Act of that year, the balance of 282,304 acres came under the control of the State Legislature to be administered for the purpose of Public Instruction. Subsequently the Church and School Lands Act, 1897, revested all these lands in the Crown, free from any trust or condition, but subject to the provisions of the Crown Lands Act of 1884 and its subsequent amending Acts, thus determining the land as Crown land. Until a notification classifying any area of Church and School Lands has been published in accordance with the Crown Lands Act, 1895, such area may be dealt with only by reservation, dedication, license, or held under special or annual lease.

The aggregate of Church and School Lands held under lease at 30th June, 1911, in the Eastern Division was 14,014 acres, at a rental of £592 per annum, the subdivisions being as follows:—

	No.	Area. acres.	Rent. £
Pastoral	17	13,640	155
Agricultural	47	341	86
Gold Leases	2	11	11
Ninety-nine Year	38	10	329
Miscellaneous, Mining	4	12	11
Total	108	14,014	592

In addition to the above, there were 18 miles of water races.

The Australian Agricultural Company, incorporated by Act of the Imperial Parliament, dated the 21st June, 1824, was, in 1825, granted an area of 1,000,000 acres. An area containing 1,048,960 acres was selected in the country surrounding Port Stephens, but in 1832 the Company was authorised to exchange a portion of this grant, containing 600,000 acres, for two areas situated on the Peel River and on the Liverpool Plains, respectively, the three grants aggregating as follows:—

	acres.
Port Stephens Estate, County of Gloucester	464,640
Peel River Estate, County of Parry	249,600
Warrah Estate, Liverpool Plains, County of Buckland... ..	313,298
Total	1,027,538

In addition to this land, the Company obtained from the Crown the promise of a lease of the coal-fields at Port Hunter (Newcastle) for thirty-one years, which lease, however, was exchanged for a grant of 500 acres, increased in 1828 to 2,000 acres of coal land, upon which the Company's collieries are now situated.

OCCUPATION OF PASTORAL LANDS—LIMITED TENURE.

The pastoral lands of New South Wales have been occupied under various systems of tenure. In the early days land was held for grazing by virtue of tickets of occupation, the issue of which was stopped in 1827, when holders of such lands were required to pay a quit-rent of 20s. per 100 acres per annum, and to vacate the land at six months' notice. The necessity for depasturing increasing stocks induced settlers to extend their occupation to Crown lands without any right except that of first discovery, until the Legislature, in 1833, passed an Act protecting Crown lands from intrusion and trespass, Commissioners being appointed to safeguard the interests of the State.

The discovery of new country soon attracted pioneer squatters beyond the limits of settlement as proclaimed on the 14th October, 1829; and regulations, involving liability to severe penalties, were issued on the 29th July, 1836, with the view of restraining unauthorised occupation. In 1839 the regulations were reinforced by the passing of an Act levying upon stock a yearly assessment at the following rates:— $\frac{1}{2}$ d. for every sheep; $1\frac{1}{2}$ d. per head of cattle; and 3d. for every horse.

Under an Act passed in 1847 a new system was introduced relating to pastoral lands of which previously the tenure had been annual, the fee being based on the area of land occupied by the squatter. Under the new plan, fixity of tenure of lease was substituted, the license fee being calculated upon the stock-carrying capacity of the run; but the term of the pastoral leases varied, being fixed, in the unsettled districts, at fourteen years; in the intermediate division, at eight years; while in the settled districts the yearly tenure was retained. The licensing fee under the altered conditions was charged at the rate of £10 for 4,000 sheep, or a proportional number of cattle—which was the minimum at which the stock-carrying capacity of a run could be assessed—and £2 10s. for every additional 1,000 sheep, or proportionate number of cattle. In settled districts lands were let for pastoral purposes only, in sections of not less than 1 square mile in area, the annual rental for each section being fixed at 10s. The holders of alienated lands were permitted to depasture their stock upon Crown lands adjoining their holdings, free of charge; this permission, however, constituted only a commonage right.

The Occupation Act of 1861 created a new system, limiting the tenure of pastoral leases to five years in unsettled, and intermediate or second-class settled districts, and leaving the whole of the pastoral leases open to the operations of the free selectors. The evils resulting from this system led Parliament to adopt, in 1884, 1889, 1895, and at intervals since 1903, the measures at present in force, the provisions of which are described below.

CROWN LANDS ACT OF 1861.

The conditions of colonisation altered greatly under the powerful attraction of the gold-fields; and, to meet the wants of a class of immigrants of a different type from those contemplated by former enactments, the question of land settlement had to be discussed in an entirely new spirit, the result being the passing of the Crown Lands Act of 1861, introduced by Sir John Robertson. The conditions of settlement had rendered it difficult previously for men of small means to establish themselves with a fair chance of success, and the new measure aimed at facilitating the settlement of an industrial agricultural population side by side with the pastoral tenants, by introducing

a principle entirely new to the land legislation of the State, namely, that of free selection, in limited areas, *before survey*. The Act provided for the conditional purchase of areas from 40 to 320 acres in extent at £1 per acre—25 per cent. of the purchase money to be deposited with the application. At the expiration of three years the purchaser was required to pay the balance, and to furnish a certificate showing that he had resided on the land, and made the necessary improvements. Provision was made to defer payment of the balance of the purchase money on receipt of 5 per cent. interest.

The Amending Act of 1875, under which annual instalments were payable, gave to any conditional purchaser of land the option of availing himself of the change in the method of payment. The system of unconditional sales was, however, continued under the Act of 1861; and during the twenty-three years the Act was in operation 23,470,140 acres were sold conditionally, and 15,572,001 acres by auction, by improvement purchase, by virtue of pre-emptive right, or otherwise without conditions, the total area alienated being 39,042,141 acres. In many cases the land selected, or purchased, reverted to the State; so that the absolute area alienated or in process of sale when the Act of 1884 came into force amounted to only 32,819,023 acres, besides 7,146,579 acres alienated prior to 1861.

THE CROWN LANDS ACTS OF 1884 AND 1889.

After many amendments the Act of 1861 was superseded by that of 1884, with the supplementary enactment of 1889, which measures maintained the principle of free selection before survey, but with one essential difference. Under the original Act the whole area of the Crown lands was thrown open to free selection, including the lands held under pastoral lease. The Acts of 1884 and 1889 were devised to give fixity of tenure to the pastoral lessee and to obtain a larger rental from the public lands, at the same time restricting the area sold unconditionally.

Existing holders of pastoral leases under the earlier Act were required to surrender one-half of their leases, which were resumed by the Crown for subsequent alienation, leasehold, or reserve; the other half in each case was leased to the pastoralist under fixity of tenure for a term of years. On the 31st December, 1884, when this division was made, there were 4,313 leased runs, yielding an annual rental of £268,500, and forming about 1,600 "stations," estimated to contain the bulk of the unalienated public estate, after allowing for reserves, &c. An increase in the revenue from pastoral occupation, one of the principal objects of the Act of 1884, has been realised, as evidenced by the total revenue received from the pastoral occupation of Crown lands, which increased from £329,356 in the year 1884 to £548,057 in the financial year 1910-11.

THE CROWN LANDS ACTS OF 1895 AND 1903 TO 1910.

The Act of 1861 failed conspicuously in encouraging *bond-fide* settlement; and the legislation of 1884 and 1889 also was ineffective, since the accumulation of land in large estates continued, while settlement proceeded very slowly. Expert opinion pointed strongly to the necessity of introducing entirely new principles, and this was done in the Crown Lands Acts of 1895 and 1903, which, while placing land within easy reach of all, supply the means of securing permanent settlers through the new system of tenure—homestead selections and settlement leases.

The State is divided into three territorial divisions, Eastern, Central, and Western, the boundary lines running approximately north and south. Control of the lands within the Western Division is vested in the Western Land Board, consisting of three Commissioners. The Eastern and Central divisions are subdivided into Land Districts, in each of which is stationed a Crown Land Agent, whose duty is to receive applications and furnish

information regarding land. Groups of these districts are arranged in larger areas, under the control of Land Boards, whose decisions are subject to review by the Land Appeal Court, which is composed of a President and two Commissioners, whose awards in matters of administration have the force of judgments of the Supreme Court. Whenever questions of law arise, a case may be submitted to the Supreme Court, either on the written request of the parties interested, or by the Land Appeal Court. The conditions of alienation and pastoral occupation of Crown lands differ in each of the three divisions of the State.

The Eastern Division has an area of 61,260,326 acres, and includes a broad belt of land between the sea-coast and a line nearly parallel to it, starting from a point midway between the small settlements at Bonshaw and Bengalla on the Dumaresq River, and terminating at Howlong, on the River Murray, thus embracing the coastal districts of the State, as well as the northern and southern tablelands. In this division is excellent agricultural land, and all the original centres of settlement, which are readily accessible to the markets of the State. For these reasons, the conditions governing the purchase and occupation of the Crown lands in the Eastern Division are more stringent than is the case in the Central and Western Divisions.

The Central Division embraces an area of 57,055,846 acres, extending from north to south between the western limit of the Eastern Division and a line starting from a point on the Macintyre River, where it is crossed by the 149th meridian of east longitude, and following this river and the Darling to the junction of Marra Creek; thence along that creek to the Bogan River, and across to the River Lachlan, between the townships of Euabalong and Condobolin, along the Lachlan to Balranald, and thence to the junction of the Edward River with the Murray. The area thus defined contains the upper basin of the Darling River in the northern part of the State, and in the south portions of the basins of the Lachlan, the Murrumbidgee, and other affluents of the Murray. The land in this division has been devoted mainly to pastoral pursuits; but experience having proved that it is suitable for agriculture, the cultivated area is increasing steadily.

The Western Division is situated between the western limit of the Central Division and the South Australian border. It contains an area of 80,318,708 acres, watered by the Darling River and its tributaries, and is devoted to pastoral pursuits. Water conservation and irrigation are the factors which ultimately will counteract climatic conditions and irregular rainfall, and make agriculture possible over this large area, of which the soil is adapted to the growth of any kind of crop; but legislation in regard to the occupation of the lands of the district is based upon the assumption that for many years to come there will be little inducement for agricultural settlement.

METHODS OF ACQUISITION AND OCCUPATION.

Under the Acts at present in force, land in the different divisions of the State may be acquired by the following methods:—

- (1) Conditional and additional conditional purchase with residence;
- (2) Conditional purchase without residence;
- (3) Classified conditional purchase;
- (4) Preferent right of purchase attached to conditional leases;
- (5) Improvement purchases on gold-fields;
- (6) Auction sales;
- (7) After-auction sales;
- (8) Special sales without competition;
- (9) Exchange;
- (10) Volunteer land orders;
- (11) Homestead selection.

Crown lands may be occupied under the following systems of lease, viz. :—

- (1) Annual ;
- (2) Conditional purchase ;
- (3) Conditional ;
- (4) Inferior lands ;
- (5) Occupation license ;
- (6) Pastoral ;
- (7) Scrub ;
- (8) Special ;
- (9) Residential on gold and mineral fields ;
- (10) Improvement ;
- (11) Settlement ;
- (12) Snow-lands ;
- (13) Working men's blocks.

The maximum area which may be purchased conditionally differs in the Eastern and Central Divisions according to the method of acquisition shown in the statement above. In the Western Division land may be alienated by auction or occupied under lease.

ACQUISITION.

Conditional Purchase.

Unreserved Crown lands in the Eastern and Central Divisions not held under pastoral or other lease are available for conditional purchase, and lands held under annual lease or occupation license may also be acquired in this way. Land under conditional lease in any division may be purchased conditionally by the leaseholder only. Lands within suburban boundaries or within population areas may be proclaimed as special areas, and are open to conditional purchase under the special conditions prescribed. The value of any improvements on a conditional purchase must be paid by the applicant.

Residential conditional purchase may be taken up by persons over age 16, except married women who are living apart from their husbands and have not obtained orders of judicial separation, but for a non-residential conditional purchase the minimum age limit is 21 years. Every conditional purchase must be made solely in the interest of the applicant. Minors who become conditional purchasers have the rights and liberties of persons of full age in connection with their land.

The minimum and maximum areas allowed for each class of conditional purchase are as follow :—

Class.	Division.						Minimum Area.	Maximum Area.
							acres.	acres.
Residential	Eastern	...	...	...	...	...	40	640
" " " " " "	Central	...	...	...	...	...	40	2,560
Non-residential	Eastern	...	...	...	...	...	40	320
" " " " " "	Central	...	...	...	...	...	40	320
Special area	Eastern	...	...	...	...	.....	.....	320
" " " " " "	Central	...	...	...	...	.....	.....	640

With regard to special areas, both the minimum and maximum areas are subject to proclamation in the *Government Gazette*, and, are, therefore, liable to limitation. Any conditional purchaser may take up the maximum area at once, or by a series of purchases at convenient intervals. With the exception of non-residential purchases, provision is made in the Crown Lands Amendment Act, 1908, that the specified maximum areas may be exceeded by means of additional holdings, the area of which, together with all other lands held, other than on annual tenure, must not exceed a home maintenance

area, meaning thereby an area which, used for the purpose for which it is reasonably fitted, would be sufficient for the maintenance in average seasons and circumstances of an average family. Additional holdings need not necessarily adjoin the original holdings, but must be situated within a reasonable working distance.

Under the Crown Lands Amendment Act of 1905 areas may be set apart for original holdings, or for additional holdings; but no area may be selected under both classes of holdings. Original holdings include (a) original conditional purchases and (b) original conditional purchases and conditional leases taken up in respect of, and at the same time as, the original conditional purchase within the area. Additional holdings include (a) additional conditional purchases and (b) conditional leases other than those previously mentioned. Values and rentals are specified in the official notices under the Act. Lands may be classified and set apart, by notification, at specified prices.

Applications for conditional purchase, or for additional conditional purchase, must be lodged with the Crown Lands Agent of the district in which the land is situated, and a deposit and survey fee paid at the same time. The deposit on residential purchases is at the rate of 5 per cent. of the price of the land, and 4s. per acre on non-residential purchases of ordinary land; but on special areas, and on lands within classified areas, it varies according to the prices fixed for the land. Under ordinary conditions the balance of purchase money, with interest at 4 per cent. per annum, is cleared off by thirty annual payments of 1s. per acre. The first instalment is due on the expiration of three years from the date of the contract. In the case of holdings brought under the Conditional Purchasers' Relief Act of 1896, the instalments may be reduced to 9d. per acre, and in some instances to 6d. per acre, thereby extending the total period of repayment to sixty-six years, provided the holders of the conditional purchases remain in residence. By the Crown Lands Act Amendment Act of 1903, the rate of interest on the balance of purchase money was reduced to $2\frac{1}{2}$ per cent. per annum, being retrospective only in special circumstances. Upon receipt of an application for a conditional purchase the Land Board may cause the land to be surveyed and a report to be supplied by the surveyor; and may either confirm or disallow the application. In case of confirmation a certificate is issued to the applicant.

The original conditional purchase must be occupied continuously by the selector for a period of ten years, and residence must be commenced within three months after the application has been confirmed by the Land Board, who may grant leave of absence under special circumstances. Each additional conditional purchase or conditional lease is subject to the condition of residence indicated, but the place of residence may be on any block of the series, and the term may be reduced by the applicant's previous residence on the series, up to, but not exceeding, five years.

The selector must enclose his land, within three years after confirmation, with such a fence as the Land Board may prescribe; but he may substitute improvements in lieu of fencing. In such a case, permanent improvements, of the value of 6s. per acre, but not exceeding £384, are required within three years, and these improvements must be brought up to the value of 10s. per acre, but not exceeding an aggregate value of £640, within five years from the date of confirmation. In the case of non-residential purchases, the land must be fenced within one year after date of confirmation, and within five years other improvements to the value of £1 per acre must be effected. Under the Crown Lands Amendment Act, 1908, an original non-residential conditional purchase, with any non-residential conditional purchase made in virtue of it, may be converted into an original conditional purchase, provided that the ten years residence commences from the date of

application for such conversion. This term of residence is subject to reduction, and all moneys previously paid are credited towards payment of the converted conditional purchase. A proviso of the Crown Lands Amendment Act, 1910, permits of limitation of value of improvements to be effected, *i.e.*, 30 per cent. of price of the subject land within 3 years, or 50 per cent. within 15 years—this limitation applying to conditional purchases or leases, except purchases under section 47 of the Act of 1884.

Preferential Rights of Conversion.

Conditional purchases, or conditional leases of the same series, may be converted into a homestead selection, if the holder has been in *bona fide* residence for at least six months, in which case all moneys paid as interest or rent are deemed to have been paid for the use of the land, and all moneys paid off the purchase money are credited towards future rent of the selection.

Improvement Purchases.

Holders of miners' rights or of business licenses on a gold-field, being in authorised occupation of land containing improvements, may purchase such land without competition. Improvements must include a residence or place of business, and be of the value of £8 per acre on town land, and £2 10s. on any other land.

Auction Sales and After-auction Purchases.

Crown lands are submitted to auction sale under two systems. Under the ordinary system the balance of purchase money is payable, without interest, within three months of the day of sale, while, under the deferred payment system, the balance is payable by instalments, with 5 per cent. interest, distributed over a period not exceeding five years; in either case, 25 per cent. of the purchase money must be deposited at the time of sale. Auction sales are permitted to the extent of 200,000 acres in any one year. Town lands may not be sold in blocks exceeding half an acre, nor at a lower upset price than £8 per acre; and suburban lands must not exceed 20 acres in one block, the minimum upset price being £2 10s. per acre. Country lands may be submitted in areas not exceeding 640 acres, the upset price being not less than 15s. per acre. The value of improvements on the land may be added to the upset price.

Special Non-competitive Sales.

Any unnecessary road which bounds or intersects freehold land, may be closed and sold to the freeholder at a price determined by the Land Board, and any unnecessary road which passes through land held under conditional purchase may be closed and added to the area.

In many Crown grants of land having water frontage, reservations are maintained, being usually 100 feet from high-water mark, but the Crown may rescind the reservation, and convey the land to the holder of the adjoining land, at a price to be determined by the Land Board.

The owner in fee-simple of land having frontage to the sea, or to any tidal water or lake, who desires to reclaim and purchase any adjoining land lying below high-water mark, may apply to the Minister for Lands to do so, except in the case of Port Jackson, the control of which is vested in the Sydney Harbour Trust. Reclamations are not authorised which might interrupt or interfere with navigation.

Land encroached upon by buildings erected on granted land, or land situated between granted land and a street or road, which forms, or should form, the way of approach to the granted land, or land to which no way of access is attainable, or land which is insufficient in area for conditional purchase, may be purchased by the owner in fee-simple of the adjoining land, at a price determined by the Board.

Exchange.

Before the granting of fixity of tenure in connection with pastoral leases, the lessees had made it a practice to secure portions of their runs by conditional purchases and purchases in fee-simple. The practice was disadvantageous to the public estate, since Crown lands were left in detached blocks severed by lessees' freehold properties, and the lessees realised that it would be convenient to them to gather their freeholds together in one or more consolidated blocks by surrender of the private lands in exchange for Crown lands elsewhere.

Volunteer Land Orders.

Holders of certificates issued to volunteers who have served under the provisions of the Volunteer Force Regulation Act of 1867, are entitled to a free grant of 50 acres of land. These certificates entitle the holder to 50 acres of such land as may be open to conditional purchase, other than lands within a proclaimed special area. Claims to these grants lapse unless lodged within three years after the commencement of the Crown Lands (Amendment) Act, 1908.

Homestead Selection.

The appropriation of areas for homestead selection is a prominent feature of the Act of 1895, the land chosen for subdivision being good agricultural land. Where suitable lands are situated within easy access of towns, small blocks are set apart to meet the requirements of business people, the lands being available after particulars relating to area, capital value, &c., have been published in the *Gazette*. The maximum area that may be selected is 1,280 acres, but the selector is limited to a block as granted; the tenure is freehold, subject to perpetual residence and perpetual rent; the selector is required to deposit one-half year's rent and one-tenth of the survey fee with his application, and to pay for any improvements already on the land. The rent, until the expiration of the first six years of the selection, if the grant is not previously issued, is $1\frac{1}{4}$ per cent. of the capital value of the block. An appraisalment of the capital value of the land may be obtained under certain conditions. Additional land may be acquired to make up an area which, with all other lands held by the applicant other than under annual tenure, would not be more than sufficient for the maintenance of the applicant's home in average seasons and circumstances. The additional holding need not adjoin the original holding, but must be situated within a reasonable working distance. Any person eligible to take up a conditional purchase may apply for a homestead selection. After issue of the grant the rent is $2\frac{1}{2}$ per cent. on the improved capital value of the land, which is appraised every fifteen years. The only expenditure required in improvements is £20 for a dwelling-house within the first eighteen months; the condition of residence is a perpetual obligation, but after issue of the grant, may be restricted to seven months in each year. The land may not be transferred during the first five years, and each successive transferee is required to live on the land while he holds it. Tenant-right in improvements is allowed, and the holding is so protected that it cannot, by any legal procedure, except by levy or sale for taxes, be taken from the owner while he resides on it. Under the Crown Lands (Amendment) Act, 1908, a homestead selection or grant may be converted into a conditional purchase lease, a conditional purchase, or a conditional purchase and conditional lease, provided the area contained in such lease does not exceed three times the area in the conditional purchase. Holders of conditional purchases may convert their holdings into homestead selections.

OCCUPATION.

Annual Leases.

Unoccupied lands not reserved from lease may be obtained for pastoral purposes as annual leases, on application, or they may be offered by auction or tender. No conditions of residence or improvement are attached to annual leases, which convey no security of tenure, the land being alienable by conditional purchase, auction sale, &c. The area in any one lease is restricted to 1,920 acres.

Conditional Purchase Leases.

Areas set apart for disposal by way of conditional purchase lease are subdivided as the Minister for Lands may determine. The lease is for forty years, at a rental of $2\frac{1}{2}$ per cent. per annum on the capital value. The value of existing improvements is appraised by the Land Board, and special conditions may be imposed regarding improvements, cultivation, preservation, or planting of timber, etc.

Any male above the age of 18 years, and any female above 21 years, who is not disqualified under the provisions of the Land Act, may apply for a conditional purchase lease. A female applicant must be unmarried, or widowed, or living apart from her husband under a decree of judicial separation.

Residence on the lease must be continuous for ten years, and must commence within twelve months from the date of confirmation, but the commencement of residence may be postponed to any date within five years of confirmation. At any time after the confirmation of an application, the holder may convert the area into a conditional purchase by payment of a deposit of 5 per cent. on the capital value of the land, provided that the proper conditions have been observed, and subject to all the unperformed conditions of the lease, except payment of rent. The balance of purchase money is payable by equal annual instalments at the rate of 5 per cent. of the price, consisting of principal, and interest at the rate of $2\frac{1}{2}$ per cent. on the unpaid balance, the first instalment becoming due twelve months after the date of application for conversion. Under the Crown Lands Act, 1908, land may be set apart for disposal as special conditional purchase lease, provided that for six months the land has been available for some class of residential holding. The areas must be not less than 20, nor more than 320 acres. There are no conditions of residence, but substantial improvements of value not less than 10s. per acre must be completed within three years. Any holder of a conditional purchase lease may acquire additional conditional purchase leases, but in no case may the total area of the lands held by him under any tenure, except annual, exceed a home maintenance area.

Conditional Leases.

A conditional lease may be obtained by any holder of a conditional purchase (other than non-residential), or a conditional purchase within a special area in the Eastern Division. Lands available for conditional purchase are also available for conditional lease, with the exception of lands in the Western Division, or within a special area or a reserve. Applications must be accompanied by a provisional rent of 2d. per acre and a survey fee. The area which an applicant may obtain as conditional purchases and conditional leases is restricted to 1,280 acres in the Eastern Division, and 2,560 acres in the Central Division; but the Land Board may specifically permit larger areas. The lease is for a period of forty years, at a rent determined by the Land Board, payable yearly in advance. The conditions of fencing, or substitution of improvements in lieu of fencing, which attach to a residential conditional purchase, apply equally to a conditional lease, and residence is required as in the case of an additional conditional purchase.

Leases of Scrub and Inferior Lands.

Scrub leases may be obtained on application, or by auction or tender, but inferior-lands leases may be acquired only by auction or tender. There is no limitation as to area, and in the case of a lease obtained by application the rent is appraised by the Local Land Board. The initial rent of an inferior-lands lease prevails throughout the whole term; but the terms of a scrub lease may be divided into periods, the rent for each period being determined by reappraisal. The term of each class of lease may not exceed twenty-eight years. The holder of a scrub lease must take such steps as the Land Board may direct for the purpose of destroying the scrub, and keep the land clear afterwards. During the last year of any of the leases application may be made for a homestead grant of 640 acres.

Occupation Licenses.

Occupation licenses may be (a) preferential occupation licenses, consisting of the area within the expired pastoral leases, and (b) ordinary occupation licenses, which relate to the parts of the holdings formerly known as resumed areas. Occupation licenses extend from January to December, being renewable annually at a rent determined by the Land Board.

Pastoral Leases.

Under the Crown Lands Amendment Act of 1903, the registered holder of any pastoral lease, preferential occupation license, or occupation license, may apply for a lease, for not more than twenty-eight years, of an area not exceeding one-third of the total area of the land comprised within the lease or license, subject to such rent, conditions of improvement, and withdrawal for settlement as may be determined.

Special Leases.

Special leases are issued chiefly to meet cases where land is required for some industrial or business purpose, and may be obtained by auction or otherwise, the term of the lease not to exceed twenty-eight years. The conditions attached are suitable to the circumstances of each case, being, like the rent, determined by the Land Board. The Crown Land Act, 1908, provides for the conversion of special leases, and of church and school lands leases, into conditional purchase leases or additional conditional purchase leases; or conditional purchases or additional conditional purchases; or homestead selections or additional homestead selections; or settlement leases or additional settlement leases; or conditional leases.

Residential Leases.

The holder of a "miner's right" or "mineral license" within a gold or mineral field may obtain a residential lease. A provisional rent of 1s. per acre is charged, the maximum area 20 acres, and the longest term of the lease twenty-eight years; the annual rent is appraised by the Land Board. The principal conditions of the lease are residence during its currency, and the erection within twelve months of necessary buildings and fences. Tenant-right in improvements is conferred upon the lessee. The holder of any residential lease may apply after the first five years of his lease to purchase the land.

Improvement Leases.

Improvement leases may consist of any scrub or inferior land not suitable for settlement in the Eastern or Central Divisions, and are obtained only by auction or tender. The rent is payable annually, and the lease is for a period of twenty-eight years, with an area not exceeding 20,480 acres.

Upon the expiration of the lease the last holder will have tenant-right in improvements. During the last year of the lease the lessee may apply for a homestead grant of 640 acres, including the area on which his dwelling-house is erected. Should the Advisory Board, constituted under the Closer Settlement Act, 1907, report that land comprised in an improvement lease or scrub lease is suitable for closer settlement, the Minister may require the surrender of the lease to the Crown, the lessee being compensated.

Settlement Leases.

Under this tenure, farms gazetted as available for settlement lease are obtainable on application, accompanied by a deposit consisting of six months' rent and the full amount of survey fee. The maximum area of agricultural land which may be taken up is 1,280 acres; but where the settler must combine agriculture with grazing, the farms may contain any area not exceeding 10,240 acres. These areas, however, may be exceeded by means of additional holdings, which need not adjoin the original holding, but must be situated within a reasonable working distance thereof. The lease is issued for a term of forty years, divided into four periods. The annual rent for the first period is that notified before the land is made available for lease; but the lessee may require that the rent be determined by the Land Board, and the annual rent for each succeeding period may be separately determined in like manner. Residence is compulsory throughout the whole term; and the land must be fenced within the first five years, and noxious weeds and animals on the land destroyed within eleven years. The lessee may apply at any time after the first five years of the lease for an area not exceeding 1,280 acres, on which his house is situated, as a homestead grant. Under the Crown Lands Act, 1908, the holder of a settlement lease may convert such lease into a conditional purchase, or into a conditional purchase and conditional lease under certain provisions, but in no case may the unimproved value of the land to be converted exceed £3,000.

Snow Leases.

Vacant Crown lands which for a portion of each year are usually covered with snow, and are thereby unfit for continuous use or occupation, may be leased as snow leases. Not more than two snow leases may be held by the same person. The minimum area is 1,280 acres, and the maximum 10,240 acres. The term of the lease is seven years, but may be extended by three years.

Working Men's Blocks.

This tenure has been created by the Blockholders' Act of 1901, under which workmen may secure a lease of a block, not exceeding 10 acres, for a period of ninety-nine years. An applicant must be not less than 18 years of age, and gain his livelihood by his own labour; the rent may not exceed 5 per cent. on the capital value of the land. The lessee and his family must reside on the land for at least nine months in every year, pay the rent annually, and all rates, taxes, and value of improvements, and must fence the land within two years. A blockholder may have his block protected from seizure for debt, except for rates and taxes.

WESTERN DIVISION.

The administration of the Western Division under the Western Lands Act, 1901, is vested in three Commissioners, constituting "The Western Land Board of New South Wales," who, sitting in open Court, exercise all the powers conferred upon Local Land Boards by the Crown Lands Acts.

Subject to existing rights and extension of tenure granted under certain conditions, all forms of alienation (other than by auction and lease) prescribed by the Crown Lands Acts, ceased to operate within the Western Land Division from the 1st January, 1902.

The Commissioners recommend the areas, boundaries, and the rent chargeable, and determine the value of any improvements, prior to the opening of lands for lease.

The registered holder of a pastoral, homestead, improvement, scrub, or inferior lease or occupation license, of land in the Western Division, could apply before the 30th June, 1902, to bring his lease or license under the provisions of the "Western Lands Act of 1901;" in cases where application has not been made, such lease or license is treated as if the Act had not been passed.

All leases issued or brought under the provisions of the "Western Lands Act of 1901" expire on the 30th June, 1943, except in cases where a withdrawal is made for the purpose of sale by auction or to provide small holdings, when, as compensation, the lease of the remainder may be extended for a term not exceeding six years.

The rent on all leases current at the commencement of the Act is determined by the Commissioners for the unexpired portion. The minimum rent or license fee is 2s. 6d. per square mile or part thereof, the maximum is 7d. per sheep on the carrying capacity determined by the Commissioners.

Holdings under the Western Lands Act as at 30th June, 1911, were classified as follows:—

Class of Holding.	Leases issued.	Area.	Annual Rentals.
	No.	acres.	£
Pastoral Leases	300	40,811,052	52,918
Homestead Leases	1,108	10,198,030	22,345
Improvement Leases	116	1,950,275	1,078
Scrub Leases	3	17,431	9
Inferior Leases	4	209,950	43
Settlement Leases	8	40,050	130
Artesian Well Leases	28	286,391	415
New Special Leases	231	1,015,361	1,147
Special (Conversion) Leases	62	9,448	317
Residential Leases	1	10	1
Occupation Licenses	116	9,162,347	2,840
Homestead Selections	12	7,768	48
" Grants	22	18,207	103
Section 32, Western Lands Act Leases	280	2,864,701	2,092
Part VII, " "	257	7,196,707	5,516
Preferential Occupation Licenses	2	5,785	3
Permissive Occupancies	37	533,733	342
	2,587	74,327,246	89,352

REAPPRAISEMENT.

Under the Crown Lands Amendment Act, 1910, the capital value of a homestead selection after it has been granted, or the rental of a settlement, or a conditional lease is determinable, on reassessment, at intervals of fifteen years.

ANNULMENT.

Applications for conversion to mineral conditional purchase may, under the 1910 Act, be annulled or withdrawn, and all moneys, less authorised deductions for cost, refunded with the application.

LABOUR SETTLEMENTS.

In the Labour Settlements Act, 1902, provision is made for land to be set apart for lease as a labour settlement, under the control of a Board, which is empowered to enrol approved persons; to make regulations concerning the work to be done; to apportion the work among the members; and to distribute equitably wages, profits, and emoluments, after providing for the cost of maintenance of members; to establish any trade or industry, and apportion the profits among the enrolled members. The land is leased to the Board, in trust for the members of the settlement, for a period of twenty-eight years, with right of renewal for a further term of twenty-eight years.

With a sufficient enrolment of members a Board may apply for monetary assistance on behalf of the members of the settlement, to a maximum amount of £25 for each enrolled member who is the head of a dependent family; £20 for each married person without a family; and £15 for each unmarried person. On the expiration of four years from the commencement of the lease, and at the end of each year following, 8 per cent. of the total sum paid to the Board becomes a charge on its revenue, until the total amount advanced, with interest at the rate of 4 per cent. per annum, has been repaid.

On the 30th June, 1911, the only settlements in existence were those at Bega and Wilberforce. At Bega an area of 1,360 acres is attached to the settlement, and on the date specified there were 26 men enrolled, the total population being 146. A sum of £2,420 has been advanced by the Government and the value of improvements, exclusive of crops, is £3,110. At Wilberforce, an area of 435 acres has been granted for settlement. On the 30th June, 1911, there were 10 men enrolled, the total population being 51. Loans from the Government amount to £2,480, the value of improvements, exclusive of crops, being £1,280.

CLOSER SETTLEMENT.

Under the Closer Settlement Act, 1901, provision was made for the acquisition of private lands, or of lands leased from the Crown, for purposes of closer settlement. Lands so acquired may be divided into farms and leased for a term of ninety-nine years, at an annual rental not exceeding 5 per cent. of the capital value of the land. No power of compulsory resumption was conferred, and, consequently, the Act was practically inoperative.

Under the Closer Settlement Act, 1904, which repealed the 1901 enactment, provision was made for compulsory resumption, for purposes of closer settlement, of private land, when the value exceeds £20,000, exclusive of improvements. Owners may offer to surrender private lands in consideration of a price to be specifically set out, such offer to be binding on the owner for a period of nine months.

The Closer Settlement Amendment Act, 1907, constituted three Advisory Boards to report upon lands of a minimum value of £10,000, exclusive of improvements, suitable for closer settlement, the land being purchased by agreement with the owner; or acquired by resumption when the value, without improvements, exceeds £20,000. Within six months after the passing of an Act sanctioning the construction of a line of railway, the Governor may purchase or resume for purposes of closer settlement land, the property of one owner and exceeding £10,000 in value, on either side of the proposed railway.

Before land acquired is available for settlement, a plan of the designed subdivision, showing areas and values per acre of the proposed settlement purchases, must be approved by the Minister. The design plan includes not only land acquired under the Act but also any adjacent Crown lands set

apart for the purpose. Settlement areas are notified for disposal in three classes, viz., agricultural lands, grazing lands, and township settlement allotments.

In the Closer Settlement Amendment Act, 1909, provision is made that at any time after a proclamation of intended acquisition of an estate, if an agreement be made that the land shall be subdivided for closer settlement by the owner, the power of resumption may be suspended for a term not exceeding two years. Any sale or lease made under such agreement must be submitted to the Minister, and if it be found that the owner has failed to fulfil the conditions, the suspension of the power of resumption shall cease.

Men above the age of 18 years, and women over 21 years, and not having the protection and support of a husband, may apply for land under the Act; if they are not holders, except under annual tenure, of land which, with the area sought, will substantially exceed a home maintenance area; but if any person divests himself of land, in order to apply for a settlement purchase, his application will be disallowed.

Applications, accompanied by a deposit of 5 per cent. of the notified capital value of the settlement purchase sought, are lodged with the Crown Lands Agent. The purchase money, including interest at 4 per cent., is paid in thirty-eight annual instalments at the rate of 5 per cent. of the capital value of the land.

Residence for a period of ten years is required, and commences at any time within twelve months after the decision of the Land Board allowing the purchase; but the term may be extended to any date within five years of the allowance of purchase; and on such terms and conditions, as to improvements and cultivation, as may be arranged between the applicant and the Land Board. Residence implies continuous and *bona fide* living upon the area allotted. Subject to the approval of the Land Board, the condition as to residence may be observed in any adjacent town or village; or, by permission, may be suspended.

On unimproved land, the purchaser is required to effect substantial and permanent improvements to the extent of 10 per cent. of the capital value within two years from the date of application, with an additional 5 per cent. within five years, and a further 10 per cent. within ten years from the same date. Existing improvements on the land are regarded as the equivalent of this condition. Every purchaser is subject to conditions as to mining, cultivation, destruction of vermin and noxious weeds, &c.

The land may be leased in areas not exceeding 320 acres. Leases so granted are subject to the following conditions:—Improvements are not to be effected without the written consent of the Minister or Chairman of the Land Board; leases expire on the 31st December, but may be renewed on payment of yearly rent in advance not later than 10th December; the rent is to be appraised by the Land Board, and the granting of a lease does not exempt the land from settlement purchase; the Minister may at any time cancel the lease after three months' notice.

The policy of Closer Settlement has been much extended by the Closer Settlement Promotion Act, 1910, which provides that three or more intending settlers, each possessing the necessary qualifications to hold a settlement purchase, may enter into agreement with any landholder, under which each of them agrees to purchase a specified area of land from such owner for a price to be stated in such agreement. Intending settlers are thus enabled to acquire by direct purchase from the owners areas suitable for closer settlement under the liberal conditions attached to ordinary settlement purchases, and in addition obtain an advance of 95 per cent. of the purchase money from the Government Savings Bank.

Although the Act provides that three or more settlers may enter into negotiations for purchase, each applicant will hold his farm solely in his own interests, and not on any system of co-operation with the other applicants.

Applications have been made for a large number of farms, and it is expected that there will be a great increase in the number of intending settlers when the public become more fully aware of the facilities and liberal conditions of this Act.

Recently many private holders of land have been induced to offer their estates to the settlers, thus assisting the development of the Closer Settlement policy.

The three Advisory Boards constituted under the Closer Settlement Act have inspected and reported upon many estates well suited for closer settlement. During the year ended 30th June, 1911, six estates were acquired, and the following table contains information regarding areas administered under the Acts as at 30th June, 1911:—

Name of Settlement Purchase Area.	Lands comprised in Settlement Areas.			Price paid for Acquired land.	
	Acquired land.	Adjoining Crown land.	Total.	Total.	Per Acre.
	acres.	acres.	acres.	£	£ s. d.
Myall Creek, Inverell	53,929	19,373	73,302	138,866	2 11 6
Gobbagombalin, Wagga	61,866	4,623	66,489	207,560	3 7 1
Marrar, Wagga	26,608	781	27,389	68,777	2 11 8
Walla Walla, Albury	50,156	1,580	51,736	250,687	5 0 0
Sunny Ridge, Cowra	12,031	416	12,447	49,038	4 1 8
Boree Creek, Urana	17,002	242	17,244	61,385	3 12 3
Peel River, Tamworth	99,618	114	99,732	405,416	4 1 5
Mungery, Parkes	55,159	47,371	102,530	115,878	2 2 0
Coreen and Back Paddock, Corowa	37,862	1,492	39,354	140,000	3 14 1
Brookong, Urana	12,006	156	12,162	42,170	3 10 3
Piallaway and Walhallow, Tamworth	12,447	348	12,795	61,980	5 0 0
Everton, Dubbo	6,477	6,049	12,526	19,426	3 0 0
Pine Ridge, Mudgee	7,845	197	8,042	28,790	3 13 5
Richlands, Goulburn	8,719	302	9,021	34,885	4 0 1
Larras Lake, Molong	11,538	42	11,580	53,830	4 13 4
Crowther, Young	10,532	325	10,857	52,137	4 19 0
North Logan, Cowra	11,441	243	11,684	54,461	4 15 3
Hardwicke, Yass	6,129	112	6,241	26,050	4 5 0
Tuppal, Corowa	49,178	1,073	50,251	221,224	4 10 0
Nangus, Gundagai	7,517	212	7,729	29,819	4 0 0
Gunningbland, Parkes	12,404	109	12,513	37,212	3 0 0
Tibbereenah, Narrabri	12,357	528	12,885	49,022	3 19 8
Wandary, Forbes	8,993	439	9,437	36,963	4 2 6
Cole Park and Malton, Goulburn ...	3,131	.....	3,131	14,090	4 10 0
Bibbenluke, Bombala	16,210	.....	16,210	60,792	3 15 0
Maharatta	20,106	.....	20,106	72,384	3 12 0
Warrah, Murrurundi	45,000	.....	45,000	180,080	4 5 8
Total	676,266	86,127	762,393	2,512,922	3 14 3

At the 30th June, 1911, 647,395 acres had been selected in 1,578 farms, including 39,161 acres comprised in estates which had not then been made available. Particulars of the subdivisions are shown in the following statement:—

Name of Settlement Purchase Area.	Number of Farms.	Capital value of Areas contained in Farms.			Farms made available to 30th June, 1910.	Farms selected to 30th June, 1910.	Area selected.	Capital value of Farms selected.
		Acquired Lands.	Crown Lands.	Total.				
		£	£	£			Acres.	£
Myall Creek	134	188,642	24,719	163,361	134	134	66,858	163,361
Gobbagombalin	141	228,657	10,541	236,198	141	141	64,020	236,198
Marrar	46	75,133	2,040	77,173	46	46	27,048	77,173
Walla Walla	121	255,013	2,819	257,832	121	121	50,280	257,832
Sunny Ridge	24	50,292	1,236	51,528	24	24	12,266	51,528
Boree Creek	30	63,737	539	69,276	30	30	17,084	69,276
Peel River	289	438,384	126	438,510	289	270	97,067	436,494
Mungery	62	117,501	81,957	199,458	62	62	95,111	199,458
Coreen Creek & Back Paddock	63	149,913	3,828	153,741	63	63	38,351	153,741
Brookong	20	43,170	320	43,490	20	20	12,006	43,490
Piallaway and Walhallow	38	63,486	1,370	64,856	37	37	12,380	63,139
Everton	18	19,891	11,571	31,462	18	18	12,309	31,462
Pine Ridge	16	29,656	625	30,181	16	16	7,947	30,181
Richlands	37	36,082	932	36,964	37	37	8,918	36,964
Larras Lake	30	57,148	3	57,151	30	30	11,486	57,151
Crowther	22	53,703	694	54,397	22	22	10,680	54,397
North Logan	34	66,928	676	57,604	34	34	11,184	57,604
Hardwicke	24	26,793	277	27,070	24	20	5,843	24,950
Tuppall	116	232,106	2,364	234,470	116	110	46,840	221,071
Nangus	17	31,015	485	31,500	17	16	6,588	29,247
Gunningbland	19	38,792	118	38,910	19	19	12,389	38,910
Tibbereenah	77	51,280	868	52,148	77	69	12,229	49,563
Wandary	18	37,986	642	38,628	18	17	8,561	36,723
Cole Park and Malton ..	19	Not available as at 30th June, 1911.						
Bibbenuke	31							
Maharatta	48							
Warrah	84							
Total	1,578	2,297,158	148,750	2,445,908	1,305	1,356	647,395	2,419,853

The aggregate area of the farms surveyed was 653,144 acres, an average of 414 acres each; reserves for roads, &c., amounted to 24,802 acres, and at 30th June, 1911, 39,161 acres included in the area selected had not been allotted.

The average cost to the settler was £3 14s. 9d., per acre and £1,784 per farm. The farms which have not yet been selected are let under permissive occupancy, and remain available for settlement purchase application.

The following statement shows the extent of operations under the Closer Settlement Promotion Act, 1910, during the year ended June, 1911:—

District.		Estates.		Farms applied for.	Area.
					acres.
North Coast...	Casino	2	19	3,232	
	Kyogle	1	13	2,989	
	Taree	1	4	524	
North-Western	Glen Innes	2	10	4,227	
South Coast...	Berry	1	6	1,046	
Riverina	Henty	1	9	3,566	
	June	1	5	1,975	
	Wagga	2	7	2,387	
	Culcairn	1	6	1,715	
	Tocumwal	2	10	5,182	
	Corowa	1	7	2,383	
	Germanton	1	5	967	
	Denman	1	5	1,789	
South-Western	Temora	3	20	9,909	
	Yerong Creek	1	3	1,640	
	Young	3	19	8,838	
	Acacia Creek	1	21	7,326	
	Lockhart	1	5	1,920	
	Grenfell	1	7	2,598	
	Forbes	1	3	938	
Western	Taralga	1	11	3,989	
Total		29	195	69,140	

The aggregate value of the areas taken up was £367,408, and in addition to the farms actually taken up there were, at 30th June, 1911, 26 other farms, with a total of 10,784 acres, and valued at £55,398, for which applications had been approved.

LAND RESUMPTIONS.

Land required by the State may be obtained by resumption, purchase, exchange, surrender, or gift. Resumptions are those made under the Public Works and Lands for Public Purposes Acquisition Acts, and are treated by the Government Land Valuer, except of course, those made for purposes of Public Instruction or of Railways.

The following statement shows such resumptions and purchases made during the past five years :—

Year ended 30th June.	Area of Resumptions, &c.						Total.		
	Purchases.			Gifts.					
	a.	r.	p.	a.	r.	p.			
1907	94,685	1	4·59	3	0	14·50	94,688	1	19·09
1908	5,974	0	20·00	67	0	17·00	6,041	0	37·00
1909	2,779	1	33·42	240	1	33·90	3,019	3	27·32
1910	3,815	1	39·55	62	3	2·16	3,878	1	1·71
1911	13,159	0	3·53	6	2	10·50	13,165	2	14·03

Resumptions and purchases made during 1910–1911, principally in connection with Burrin Juck Storage Reservoir, were :—

	Area.				Area.		
	a.	r.	p.		a.	r.	p.
Dams—Burrin Juck ...	5,926	2	12	Forests ...	745	0	0
Other ...	2	0	0	Port Kembla Harbour ...	80	0	38
Bores ...	24	0	0	Wharves ...	5	3	0
Water supply ...	517	0	20	Public School Sites ...	142	3	8
Weirs ...	6	2	21	Court-Houses ...	1	0	20
River improvements ...	1	1	13	Post Offices ...	45	3	31
Pumping station ...	20	0	0	Railways and Tramways ...	2,633	2	10
Drainage ...	0	2	3	Flemington Saleyards ...	10	0	37
Public watering places ...	1	0	15	Sewerage ...	100	3	5
Irrigation ...	868	1	35				
Defence ...	13	2	24				
Federal Capital Territory ...	2,018	3	2				
							13,165 2 14

In January, 1911, the three Advisory Boards were replaced by one central board to deal with the closer settlement lands for the whole State.

The Closer Settlement Promotion Act, 1910, enables three or more persons qualified to hold settlement purchases, to negotiate with an owner of private lands in their particular district, and to apply to have such lands brought under the Act. Upon approval by the Minister the vendor surrenders the land to the Crown, and the purchaser acquires it as a settlement purchase, obtaining an advance, secured by mortgage on the land, from the Commissioners of the Government Savings Bank, who may make advances up to 95 per cent. of the Crown valuation of the farm, with a maximum of £2,500; the total advances by the Bank under this Act in any financial year may not exceed £1,000,000. Each farm is worked independently,

the co-operation of the applicants ceasing with the allotment of an area, for which each has to lodge a deposit of £5 and costs of surveys, &c., with 5 per cent. of the Crown valuation of the farm on allotment. Repayments of advances from the Government Savings Bank are at the rate of 5 per cent. per annum, being 4 per cent. interest and 1 per cent. sinking fund, the whole indebtedness being discharged in thirty-eight years.

Slight variations in the dates of payment may be sanctioned in special circumstances, and subsequently holders of farms may obtain advances on account of improvements effected.

PROGRESS OF ALIENATION.

The figures relating to land alienation under the legislation of 1861, and to its subsequent amendments, show that up to the 30th June, 1911, there were 14,904,397 acres sold by auction and other forms of sale.

As regards conditional purchases, the following applications have been made under the various Acts:—

	Applications.	
	No.	acres.
Under the Crown Lands Act of 1861—		
To May 24, 1880	136,389	14,982,120
Under the Crown Lands Act of 1880	55,084	8,488,020
Total to 31st December, 1884...	191,473	23,470,140
Under the Crown Lands Acts of 1884, 1889, 1895, and amending Acts	91,439	16,623,618
Grand total to 30th June, 1909	282,912	40,093,758

The number of selections—viz., 282,912, containing 40,093,758 acres—has been reduced since 1909 by forfeitures, cancellations, conversions into homestead selections, &c., and increased by conversions from other tenures under the Crown Lands Amendment Act, 1908, so that the land wholly alienated, or in process of alienation by conditional purchase, on the 30th June, 1911, amounted to 30,174,827 acres contained in 204,323 purchases. Deeds have now been issued upon 110,915 completed purchases, covering 14,560,791 acres, and the balance represents the number of purchases still in force, but upon which the conditions have not been fulfilled, viz., 93,408, covering an area of 15,614,036 acres.

Applications for homestead selections numbering 9,418 were received to the 30th June, 1911, the aggregate area of such being 3,680,289 acres. Of the applications lodged, 7,353, covering 2,632,456 acres, were confirmed. Homestead grants to the number of 4,028, with an area of 1,628,176 acres, were issued to the 30th June, 1910, and during the following year 287 further homestead grants, covering 123,086 acres, were prepared. The area held under homestead selection on the 30th June, 1911, exclusive of homestead grants issued, was 607,532 acres.

The total area alienated by volunteer land orders to 30th June, 1910, amounted to 170,114 acres, being 15,371 less than for the previous year, and this area, which was increased only by 536 acres as at 30th June, 1911, represents probably the maximum area so alienable, as the right to a free grant of land in virtue of a volunteer land order lapsed on 1st February, 1912.

From 1862 to the 30th June, 1911, the Crown has dedicated 230,908 acres for public and religious purposes, the dedications during the last year covering 2,196 acres, as against 437 acres for the year ended 30th June, 1910.

The following statement shows the applications made, and those confirmed, during the last two years under the provisions of the Crown Lands Amendment Act of 1908 for the conversion of certain tenures as detailed in the preceding pages:—

Class of Holding.	Conversions during 1909-10.			
	Applications.		Confirmations.	
	No.	Area.	No.	Area.
		acres.		acres.
Conditional Leases	1,610	640,019	1,471	575,785
Conditional Purchase Leases	22	8,357	17	6,823
Homestead Selections or Grants	220	84,335	178	62,979
Settlement Leases	75	171,998	30	64,934
Non-residential Conditional Purchases	10	1,318	9	778
Special Leases	322	47,272	178	30,217
Church and School Lands Leases	12	6,406	9	3,777
Totals { Eastern Division	1,635	506,949	1,368	404,428
{ Central Division	636	452,756	524	340,865
Total for the State ...	2,271	959,705	1,892	745,293

Class of Holding.	Conversions during 1910-11.			
	Applications.		Confirmations.	
	No.	Area.	No.	Area.
		acres		acres.
Conditional Leases	2,194	1,110,037	2,016	829,272
Conditional Purchase Leases	147	43,934	109	33,207
Homestead Selections or Grants	1,476	753,018	1,190	603,351
Settlement Leases	646	1,853,435	264	650,986
Non-residential Conditional Purchases	12	1,132	8	820
Special Leases	557	84,675	275	39,657
Church and School Lands Leases	11	1,945	7	1,579
Totals { Eastern Division	2,867	1,104,491	2,422	812,264
{ Central Division	2,176	2,743,685	1,447	1,346,608
Total for the State ...	5,043	3,848,176	3,869	2,158,872

The operations of the various Orders, Regulations, and Acts of Council and of Parliament for the disposal of the public lands, since the foundation of the State, have produced the following results:—

Area granted and sold by private tender and public auction at prices ranging from 5s. to 20s. per acre, prior to the year 1862	acres.	7,146,579
Area sold by auction and other forms of sale, 1862 to 30th June, 1911, inclusive		14,904,397
Area sold under system of conditional purchase for which deeds issued, 1862 to 30th June, 1911, inclusive		14,560,791
Area granted under Volunteer Land Regulations of 1867 to 30th June, 1911		170,650
Area dedicated for public and religious purposes, less resumptions, 1862 to 30th June, 1911		230,908
Homestead selections and grants issued to 30th June, 1911		1,729,154
Total, 30th June, 1911		38,742,479
Less alienated lands within Federal Capital Territory		173,451
Total area alienated, 30th June, 1911		38,569,028
Area in process of alienation under system of conditional purchase standing good on 30th June, 1911		15,614,036
Area alienated and in process of alienation on 30th June, 1911, exclusive of lands dealt with under Closer Settlement Act		54,183,064
Area acquired for closer settlement to 30th June, 1911 (including 10,784 acres under Closer Settlement Promotion Act, 1910)		686,879
		53,496,185
Lands (acquired and Crown) alienated for closer settlement to 30th June, 1911		619,018
Total area alienated, and in process of alienation on 30th June, 1911		54,115,203

It has been found impracticable to separate the area alienated by grant from that sold by private tender, as the records of early years are incomplete upon this point.

REVENUE FROM PUBLIC LANDS, 1908-11.

The following statement shows the Revenue received from Public Lands during the years ended 30th June, 1908 to 1911 and also the Revenue per capita :—

Head of Revenue.	1908.	1909.	1910.	1911.
ALIENATION—				
Auction and Special Sales—	£	£	£	£
Auction Sales...	90,986	79,576	77,055	83,058
Improved Purchases...	2,214	2,876	2,951	3,825
Newcastle Pasturage Reserve Sales	1,195	1,034	676	1,061
Miscellaneous Purchases	6,639	9,167	7,636	11,049
Total	£ 101,034	92,653	88,318	98,993
Conditional Purchases—				
Deposits and Improvements (Acts, 1884 and 1889)	78,866	93,060	64,236	135,392
Installments and Interest (Acts of 1875, 1884, and 1889)	579,161	551,141	538,175	537,226
Interest (Act of 1861)	25,756	25,194	22,200	21,614
Balances (Acts, 1861, 1875, 1884, and 1889)	156,531	183,861	174,495	186,592
Homestead Selections (Improvements and Rent)	75,179	72,856	71,624	62,917
Total	£ 915,493	926,112	870,730	943,741
OCCUPATION—				
Pastoral Leases—				
Pastoral	2,779	829	756	749
Conditional	206,016	207,918	204,965	199,214
Conditional Purchase	6,531	13,475	19,708	21,544
Occupation Licenses	40,484	35,080	31,533	29,871
Homestead	4,498	2,226	1,555	1,688
Annual and Snow	48,477	42,982	38,152	34,297
Scrub and Inferior	9,604	10,272	10,389	9,896
Settlement	103,120	109,076	115,561	106,736
Improvement	49,018	51,997	50,712	49,501
Artesian Well	606	512	230	198
Church and School Land	967	868	7,751	632
Western Land Division	65,521	74,758	79,517	82,265
Blockholders Act of 1901	16	42	28	15
Leases under 18th Section Land Act, 1903	11,608	11,953	11,538	11,451
Total	£ 549,245	561,988	572,395	548,057
Mining—				
Mineral Leases	19,142	17,347	20,706	17,490
Mineral Licenses	20	10	.....	.....
Leases of Auriferous Lands	2,174	1,680	2,310	2,544
Deposits—Gold and Mineral Dredging Act, 1899	1,265	1,040	1,236	987
Miners' Rights	3,636	3,259	3,184	2,913
Business Licenses	1,185	988	888	784
Residential Leases	1,396	1,709	1,713	1,661
Royalty on Minerals	69,912	66,542	59,373	77,613
Fees—Warden's Courts and Department of Mines	2,365	1,994	2,063	1,889
Other Receipts	5,773	3,754	4,789	4,698
Total	£ 106,868	98,323	96,262	110,579

Head of Revenue.	1908.	1909.	1910.	1911.
OCCUPATION (continued)—				
Miscellaneous Land Receipts—	£	£	£	£
Timber Licenses, &c.	54,205	55,041	60,508	84,460
Rents, Special Objects	33,428	36,265	40,485	43,490
Fees on Preparation and Enrolment of				
Title-deeds	10,455	9,123	7,457	7,355
Survey Fees	50,456	45,177	28,883	30,823
Fees on Transfer of Leases	1,921	1,764	2,047	2,415
Quit Rents and Other Receipts	37,603	26,545	25,505	26,194
Total	£ 188,068	173,915	164,885	194,737
Gross Revenue	£ 1,860,708	1,852,991	1,792,590	1,896,107
Refunds	£ 76,314	74,989	62,850	57,190
Net Revenue	£ 1,784,394	1,778,002	1,729,740	1,838,917

REVENUE PER CAPITA.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Auction and Special Sales	0 1 3	0 1 2	0 1 1	0 1 2
Conditional Purchases	0 11 10	0 11 9	0 10 10	0 11 6
Pastoral Occupation	0 7 1	0 7 1	0 7 2	0 6 8
Mining Occupation	0 1 4	0 1 3	0 1 2	0 1 4
Miscellaneous Land Receipts	0 2 5	0 2 2	0 2 0	0 2 5
Gross Revenue	£ 1 3 11	1 3 5	1 2 3	1 3 1
Refunds ..	£ 0 1 0	0 0 11	0 0 9	0 0 8
Net Revenue	£ 1 2 11	1 2 6	1 1 6	1 2 5

AREA LEASED AT 30TH JUNE, 1911.

The area leased to pastoral tenants and others at the end of June, 1911, amounted to 125,771,584 acres (including leases to miners under the Mining Act), and was subdivided as follows:—

Type of Lease.	Area, acres.	Type of Lease.	Area, acres.
Pastoral ..	1,137,095	Snow Land ..	63,864
To outgoing Pastoral Lessees ..	1,096,327	Special ..	563,378
Occupation Licenses ..	8,998,670	Inferior Land ..	128,711
Conditional ..	16,300,855	Artesian Well... ..	92,160
Conditional Purchase... ..	677,961	Western Lands ..	74,327,246
Homestead ..	593,628	Under the Mining Act ..	218,119
Annual ..	4,095,280	Other ..	1,009,207
Settlement ..	7,782,720	Total ..	125,771,584
Improvement ..	6,430,605		
Scrub ..	2,255,758		

The total available area of the State is 198,634,880 acres, less 576,000 acres ceded to the Commonwealth Government as Federal Capital Territory. Deducting the area sold and otherwise alienated, 54,115,203 acres, and the area leased, 125,771,584 acres, making a total of 179,886,787 acres, there remained a balance of 18,172,093 acres, representing the area of country neither alienated nor leased, and including roads, unoccupied reserves, land unsuitable for settlement, and water.

AREA AVAILABLE FOR SETTLEMENT.

In 1895 attention was directed to the question of land legislation, as it was contended that the Lands Acts of 1884 and 1889 had failed to prevent the accumulation of extensive landed estates in the hands of a very limited number of proprietors.

Although it may be said, in defence of the policy pursued by this class of landowners, that in many cases it was forced upon them by the defective nature of legislation which failed to discriminate between the very different interests of the pastoralists and of the agricultural settlers, it must nevertheless have been patent to everybody that these immense alienations of the public estate were not conducive to healthy settlement. The Acts mentioned have, however, been superseded by the Crown Lands Act of 1895. Many radical changes in land legislation have been effected by this Act; but immediate remedial action can be taken only in connection with Crown lands which have not been alienated or leased to Crown tenants for a definite period of years. Leases granted under certain conditions, such as those attached to conditional leases, which carry with them the right of purchase at any time during their currency, may be considered as a form of alienation, because only a comparatively small portion of these areas is ever likely to return to the public estate. Lands under homestead leases in the Western Division not brought under the Western Lands Act, scrub lands, snow-covered areas, inferior lands, settlement leases, improvement leases, leases to outgoing pastoral lessees, leases for long periods of fixed tenure, and under the Western Lands Act for long terms, form another category of lands concerning which past legislation prevents immediate action.

The lands which can be affected beneficially by the Act of 1895 are, therefore, limited to the area which is unalienated, or for which contracts have not been made, and is further reduced by reserves for public purposes, for gold-fields and other forms of mining enterprise, and for railway and other purposes. At the end of June, 1911, there were, 38,569,028 acres absolutely alienated, excluding lands (173,451 acres) alienated within the Federal Capital Territory; 15,614,036 acres conditionally sold, the conditions of purchase not being complete; and 25,352,311 acres leased with the right to convert into freehold. These areas amounted to 79,535,375 acres; but taking into consideration the lands dealt with under the Closer Settlement Acts—686,879 acres acquired and 619,018 acres disposed of—there are 79,467,514 acres which have been placed practically beyond the scope of present or of future legislation.

The following statement shows the tenure under which the areas leased with right to convert into freehold, under the Crown Lands (Amendment) Act of 1908, are held :—

	acres.
Conditional Leases	16,300,855
Conditional Purchase Leases	677,961
Settlement Leases	7,782,720
Special Leases	563,378
Residential Leases	13,383
Church and School Land Leases	14,014
Total	25,352,311

The areas under long contracts of lease, in some cases with right of renewal, which no legislation can affect until the expiration of the fixed period of the tenure, are given below :—

	acres.
Pastoral Leases, Western Division	1,137,095
Leases to Outgoing Pastoral Lessees	1,096,327
Homestead Leases	593,628
Scrub Leases	2,255,758
Artesian Well Leases	92,160
Snow-land Leases	63,864
Leases of inferior lands	128,711
Improvement Leases	6,430,605
Leases under Western Lands Act	64,625,381
Other Leases	280,277
Total	76,703,806

Adding together 79,467,514 acres practically outside State control, and 76,703,806 acres of land leased on long contracts, a total of 156,171,320 acres shows the extent of territory which can now be more closely settled and intensely cultivated, only by voluntary action of the holders, or by more systematic and probably costly resumptions. Of the balance, after allowance has been made for useless land, it will be found that at 30th June, 1911, the State probably had about 35,000,000 acres available for occupation under various tenures. There is, however, a difficulty attending any calculation of the area included in land under long leases, which might be made available for settlement. This is apparent when the conditions under which the leases are now held are taken into consideration. Except where right to renewal on expiration of the lease exists, certain areas are continually reverting to the Crown, by effluxion of time, and again in respect of certain leases provisions have been made whereby the Minister may at his discretion withdraw a part, and in some cases the whole, of a leased area, for the purposes of settlement.

The progress of alienation and of conditional settlement by purchase and lease at various periods from 1861 to 1906, and annually since the last-mentioned year, is shown in the following table :—

At end of year.	Area Alienated for which deeds have issued.	Area Conditionally Purchased, standing good at end of year.	Area Conditionally Leased at end of year.	Area under Homestead Selection, exclusive of Homestead Grants.	Area under Homestead Grant.
	acres.	acres.	acres.	acres.	acres.
1861	7,146,579	.....	.....	.....	.....
1871	8,630,604	2,280,000	.....	.....	.....
1881	22,406,746	12,886,879	.....	.....	.....
1891	23,775,410	19,793,321	11,234,131	.....	.....
1901	26,408,169	20,044,703	13,980,942	1,491,073	35,385
1906†	32,486,086	16,499,823	15,807,249	984,426	1,087,065
1907†	33,921,508	15,691,906	15,383,502	873,319	1,247,919
1908†	35,467,021	14,868,166	16,667,124	771,561	1,385,415
1909†	36,783,741	14,475,553	16,830,954	742,338	1,501,738
1910†	37,999,049	14,362,463	16,992,760	622,903	1,628,176
1911†	38,569,028	15,614,036	16,978,816	679,554	1,049,600

† Year ended 30th June.

As already stated, land held under conditional lease is virtually alienated, since the holder has the right of converting his lease into a freehold at any time during its currency.

EFFECTS OF LAND LEGISLATION.

In the agitation which culminated in the framing of the Crown Lands Act of 1861, the contention was raised that Orders-in-Council then in force favoured occupation of the country lands by the wealthier classes; and the principles of free selection before survey and of deferred payments were introduced in the new legislation, with the object of facilitating settlement of an agricultural population side by side with the great pastoral tenants of the Crown. Statistical records for the year 1861 show that at the close of that year, and just before the new legislation had come into force, there were 21,175 holders of rural lands, of whom 17,654 were in the old settled districts, in twenty counties, grouped around three principal centres—the metropolis and the county of Cumberland, the Hunter River Valley, and that portion of the central tableland of which Goulburn, Bathurst, and Mudgee were the first towns; while the remaining 3,521 settlers were scattered over the pastoral districts. The figures showing the area held by these settlers do not discriminate between the land alienated and that occupied under lease from the Crown; but they show that in the old settled districts there were 254,347 acres under cultivation—or an average

of 14 acres per holding—and 8,522,420 acres used for stock; whilst in the pastoral districts 43,228 acres were cultivated, and 54,716,463 acres were occupied for grazing; so that, at that time, 63,536,458 acres, representing about one-third of the territory of the State, were in the occupation of the settlers.

In addition to the clauses inserted in the Act of 1861, in the interests of men of small means, certain provisions were retained which secured the accrued interests of the pastoralists under former legislation, of which they availed themselves to the utmost. By means of auction sales of country lands at the upset price of 20s. per acre, of unconditional selections of lots not sold at auction, of purchases made in virtue of improvements, and of pre-emptive right to certain lands under the old Acts of Council, the accumulation of immense estates was greatly facilitated. Sales of lands subject to conditions of residence and improvements, though made ostensibly to foster the settlement of a numerous class of small farmers, were also utilised in the interests of station owners, to whom the purchases were transferred in great numbers immediately upon completion of the conditions of residence and improvement required under the Act.

The evils resulting from the antagonistic interests of these two classes of settlers were partly checked by the amended law of 1884, which stopped the wholesale alienation of land by auction, unconditional selection after auction, and sales in respect of pre-emptive rights. The clause relating to improvement purchases was also modified, and made applicable only to small areas in gold-fields which might be purchased by resident miners, in view of certain improvements; and the area to be offered at auction sales was restricted to a maximum of 200,000 acres yearly; but conditional settlement was favoured by largely increasing the maximum area allowable to free selectors; by raising the term of residence from three to five years; and by means of more stringent conditions as to fencing and improvements.

This policy, however, did not fulfil the expectation of the legislators, as the figures relating to transfers of conditional purchases prove that, when other means of increasing the area of individual estates failed, the traffic in transfers of conditionally purchased lands, with increased areas, supplied the deficiency. The radical change introduced by the Land Act of 1895, necessitating continuous residence for a period of ten years in respect of original conditional purchases, and a further term of not less than five years in connection with additional purchases, had the effect of considerably reducing the number of applications lodged, but during the last ten years the number has steadily increased. In addition to the applications for the year 1911, as shown below, there were 2,194 applications, covering an area of 1,110,037 acres, for conversion into conditional purchase from other forms of tenure; the apparent decrease for the year is due to this cause. The following table shows the transactions under each class of conditional purchase during the last six years:—

Year ended 30 June.	Original Conditional Purchases.		Additional Conditional Purchases.		Non-residential Conditional Purchases.		Conditional Purchase Leases—application to convert into C.P. received.		Total.	
	No.	Area.	No.	Area.	No.	Area.	No.	Area.	No.	Area.
		acres.		acres.		acres.		acres.		acres.
1906	1,438	212,744	1,647	280,386	38	3,651	...	...	3,123	496,781
1907	1,535	200,852	2,122	476,345	52	5,956	14	2,642	3,723	685,795
1908	1,618	229,044	2,108	486,491	113	16,370	11	2,220	3,850	734,125
1909	1,641	285,616	2,767	797,666	121	18,791	12	3,234	4,541	1,105,307
1910	1,206	184,097	1,001	150,074	57	8,196	17	6,823	2,281	349,190
1911	801	116,177	752	98,813	49	6,547	109	33,207	1,711	254,744

The experience of the past ten years indicates that the new features introduced by the Land Act of 1895 are much appreciated by those desirous of acquiring a holding for themselves, although the residence involved is continuous and for a lengthy period. The following table indicates the operations in respect of homestead selections and settlement leases in the last six years :—

Year ended 30th June.	Homestead Selections.		Settlement Leases.	
	No.	Area.	No.	Area.
		acres.		acres.
1906	383	158,739	271	967,838
1907	291	89,426	215	680,187
1908	408	103,412	170	613,934
1909	445	137,292	278	823,208
1910	268	79,787	207	525,807
1911	294	76,651	138	419,840

The principal element which contributed to the aggregation of great landed estates was that of auction sales of country lands, which, upon the application of the run-holders, were measured in vast areas and bought generally at the upset price—at first a minimum of £1 per acre, raised in 1878 to £1 5s. per acre.

Particulars of the auction sales of country lands from the year 1862 to the 30th June, 1911, inclusive, are given hereunder :—

Year.	Lots.	Total Area.	Amount realised.	Average Price per Acre.
	No.	acres.	£	£ s. d.
1862-1872	9,228	582,479	616,399	1 1 2
1873-1883	43,465	7,963,093	8,640,098	1 1 8
1884-1894	8,631	645,770	1,222,271	1 17 10
1895-1904	5,553	397,386	675,178	1 14 0
1905*	269	20,152	28,829	1 8 7
1906†	496	18,119	32,877	1 16 3
1907†	484	20,094	32,009	1 11 10
1908†	416	9,000	19,368	2 3 0
1909†	527	8,045	20,018	2 9 9
1910†	480	4,574	22,595	4 18 9
1911†	336	3,494	21,263	6 1 9
Total ...	69,885	9,672,206	11,330,905	1 3 5

* Half year ended 30th June.

† Year ended 30th June.

These figures show that the struggle between selector and squatter did not begin in earnest until about the year 1873, when the effects of the legislation of 1861 were felt in an acute form; but during the succeeding ten years this process of defence was applied in a wholesale manner by the pastoral tenants to save their possessions from encroachment through the operations of the selectors. The system was modified by the legislation of 1884, the object of auction sales of country lands now being to obtain revenue by the sale of select parcels of land at a high average price, and in small average areas. Since the year mentioned, this system of alienation has ceased to be of use in consolidating large pastoral estates.

Among other means offered for the unconditional purchase of Crown lands, that of indiscriminate selection at the upset price of lots not sold at auction also disappeared with the passing of the Act of 1884. During the period 1862 to 1883 when this system of purchase was in operation, 15,750 lots of a total area of 1,716,976 acres were selected.

The Crown Lands Act of 1861, in exempting from sale certain leased lands, provided that a lessee should be permitted to exercise a pre-emptive right of purchase over one portion of 640 acres out of each block of 25 square miles.

The lands claimed in virtue of pre-emptive right, a form of alienation which also was abolished by the Crown Lands Act of 1884, added 2,114 lots, representing 560,825 acres, to the areas bought in the interests of the pastoralists.

The consolidation of pastoral estates did not suffer a serious check when the clauses of the Act of 1861, above cited, ceased to operate, as the transfer of conditional purchases supplied fresh means by the gradual absorption of a very large number of selections, principally in the Central and Western Divisions. Some of these transfers were made by way of mortgage, and therefore it is not possible to ascertain the area absolutely transferred by the original selectors; but the fact that 21,791,982 acres out of the total area alienated should be contained in 711 holdings, giving to each one an average domain of 30,650 acres, certainly does not indicate satisfactory settlement. The number of holdings, however, does not represent the number of owners interested, as, in some cases, these large estates are held in partnership by three or four persons, or by companies and financial corporations.

RURAL SETTLEMENT.

RURAL HOLDINGS AND TENURES.

RURAL holdings may consist of alienated or Crown lands, or of both, and are classifiable in five distinct groups, according to the tenures under which they are held, viz.: (1) Freehold lands occupied by the owner, (2) rented freeholds, (3) combined freehold and rented lands, (4) alienated lands, rented or freehold, with attached Crown lands, and (5) Crown lands only.

The following statement shows the number of occupiers, during the year ended March, 1911, under the various tenures in the different defined divisions of the State:—

Division.	Number of Occupiers of —					Total.
	Freehold.	Private Rented.	Freehold and Private Rented.	Holdings of Alienated and attached Crown Lands.	Separate Crown Lands Holdings.	
Coastal	27,407	9,814	2,728	4,024	995	44,968
Tableland	9,235	2,237	1,017	6,349	951	19,789
Western Slopes	9,412	1,318	535	3,963	1,316	16,544
Western Plains and Riverina ...	5,063	411	212	2,594	2,052	10,332
Western	626	67	14	477	952	2,136
New South Wales ..	51,743	13,847	4,506	17,407	6,266	93,769

The majority of holders own the land they occupy; the total number of occupiers of alienated lands with or without attached Crown lands was 87,503, of whom 51,743, or 59·1 per cent., occupy their own freeholds; and of 17,407 holdings which are partly Crown leases, 15,788 are made up of freeholds owned by the occupiers and worked in conjunction with the Crown leases.

A comprehensive view of the extent to which the land contained within the boundaries of the State is being used is given by the following figures, which show the area taken up in holdings of one acre and over, in each division of the State, according to the class of tenure:—

Division.	Total Area of Division.	Area Alienated in Holdings			Crown Lands—		Total Area in Holdings.
		Freehold.	Rented.	Total.	Attached to Alienated Holdings.	In Separate Holdings.	
	acres.	acres.	acres.	acres.	acres.	acres.	acres.
Coastal	22,355,401	6,748,357	1,614,550	8,362,907	4,135,908	461,192	12,960,007
Tableland	23,831,246	9,633,835	861,877	10,495,712	9,223,066	866,734	20,590,012
Western Slopes	24,261,881	11,767,840	524,502	12,292,342	6,603,080	2,689,420	20,984,792
Western Plains and Riverina ..	45,827,854	18,802,776	567,160	19,369,936	16,055,900	6,302,997	41,728,833
Western	80,368,498	1,598,900	55,157	1,654,057	59,905,790	16,615,873	78,175,720
New South Wales ..	198,684,880	48,551,208	3,623,246	52,174,454	95,928,694	26,336,216	174,439,364

Of the total area occupied, 29·9 per cent. is freehold, and 70·1 per cent. leased from the Crown. Nearly two-thirds of the Crown lands leased are in the Western Division and are used mainly for depasturing stock; in the Western Plains and Riverina 46 per cent. of the land occupied is freehold.

Tenancy, as understood in older settled communities, has made comparatively little progress in this State, 93 per cent. of the alienated land being in the occupancy of the proprietors but, in some districts, the system of working on shares is in vogue—the owner finding the land and capital to work the farms, and the farmer providing the labour and tools.

AVERAGE AREAS.

The following figures show the averages of alienated land only, and also of the total area occupied during the year ended March, 1911, of alienated and attached Crown lands and also of holdings under all forms of tenure in the various divisions of the State :—

Division.	Average size of Holding.		
	Alienated Area only.	Alienated and attached Crown Lands.	All Tenures.
	acres.	acres.	acres.
Coastal	190	284	288
Tableland	557	1,047	1,041
Western Slopes	807	1,241	1,268
Western Plains and Riverina ...	2,339	4,278	4,039
Western	1,397	51,993	36,599
New South Wales	596	1,692	1,860

The number of holdings has increased since 1880 at the rate of 119·2 per cent., while the area alienated increased by 129·6 per cent., and the average size of holding varied from 569 acres in 1880 to a maximum of 787 acres in 1890, then falling to 596 acres in 1911.

The following table shows the average size of holdings of alienated lands at intervals since 1880, the figures being inserted for each year since 1900 in order to show the persistence and steadiness of the fall :—

Year ended 31st March.	Average size of Holding.	Year ended 31st March.	Average size of Holding.
	acres.		acres.
1880	569	1904	641
1885	762	1905	635
1890	787	1906	632
1895	707	1907	625
1900	662	1908	611
1901	663	1909	608
1902	658	1910	602
1903	654	1911	596

EXTENT OF ALIENATION.

In connection with the progress of land settlement, it has been shown that the total area of lands sold and otherwise alienated was 54,115,203 acres; the leased areas amounted to 125,771,584 acres, making 179,886,787 acres more or less removed from settlement, and, exclusive of the Federal Capital Territory, leaving a balance of only 18,172,093 acres, including roads, unoccupied reserves, lands unsuitable for settlement, and water surface.

The proportions of the several Divisions of the State which have been alienated in holdings are shown in the following rates derived from the figures already quoted :—

Division.	Proportion of Total Area contained in—			
	Alienated Lands.	Crown Lands.		Total Area in Holdings.
		Attached.	Separate.	
	per cent.	per cent.	per cent.	per cent.
Coastal	37·41	18·50	2·06	57·97
Tableland	40·63	35·72	3·36	79·71
Western Slopes	50·69	27·23	8·61	86·53
Western Plains and Riverina ...	42·27	35·04	13·75	91·06
Western	2·06	74·54	20·67	97·27
New South Wales	26·27	48·29	13·26	87·82

Thus rather less than 88 per cent. of the total area contained within the boundaries of the State has been alienated in holdings of 1 acre and upwards. The highest proportion of absolute alienation, 50·69 per cent. of the area of the Division, has taken place in the Western Slopes; and the lowest, 2·06 per cent., in the Western Division; but taking the total area of holdings, the Western Division shows the maximum proportion of its area—97·27 per cent.—removed from immediate further settlement; the high proportions of 91·06 per cent. for the Western Plains and Riverina, and 86·53 for the Western Slopes show plainly that there is but little land now available in these Western Districts for some form of alienation.

PROGRESS OF ALIENATION.

Excluding from consideration land held simply under lease from the Crown, there were in the State of New South Wales at the end of March, 1911, 87,503 holdings of 1 acre and upwards in extent, comprising land acquired from the Crown by grant or purchase, with, in some cases, areas of Crown lands attached.

The number of these holdings, as returned by occupiers, and the alienated area in quinquennial periods since 1880 are given below, with the figures for 1911 in comparison :—

Year ended 31st March.	Alienated Holdings.		Year ended 31st March.	Alienated Holdings.	
	Number.	Area.		Number.	Area.
		acres.			acres.
1880	39,918	22,721,603	1900	68,098	45,086,209
1885	43,079	32,843,317	1905	75,672	48,081,314
1890	47,620	37,497,889	1910	85,178	51,256,563
1895	59,020	41,736,073	1911	87,503	52,174,454

The biggest absolute increases in the number of holdings occurred in the intervals 1890–5 (11,400) and 1905–10 (9,506), while the biggest absolute increase in the area alienated—over 10 million acres—occurred between 1880–5. The minimum area alienated in the periods shown was 917,891 acres for 1911.

The percentage increases in the intervals quoted, calculating from 1880 as basis, were as follows :—

Period.	Rate of Increase per cent. in—		Period.	Rate of Increase per cent. in—	
	Holdings.	Area Alienated.		Holdings.	Area Alienated.
	Number.	acres.		Number.	acres.
1880-1885	7.9	44.5	1900-1905	11.1	6.6
1885-1890	10.5	14.2	1905-1910	12.6	6.6
1890-1895	23.9	11.3	1910-1911	2.7	1.8
1895-1900	15.4	8.0			

The subjoined table shows the number of alienated holdings at quinquennial intervals since the year ended 31st March, 1895. In the classification of holdings according to size, as shown in this and subsequent tables, the area of Crown land attached to alienated holdings has not been taken into consideration; and the size of a holding, therefore, represents the extent of alienated land alone which it contains :—

Size of Holding.	1895.	1900.	1905.	1910.	1911.
acres.	No.	No.	No.	No.	No.
1 to 50 ...	21,587	27,356	31,734	36,288	37,272
51 „ 100 ...	7,977	8,935	9,108	9,173	9,159
101 „ 500 ...	18,593	20,160	21,989	24,672	25,322
501 „ 1,000 ...	5,719	6,063	6,607	7,632	7,911
1,001 „ 1,500 ...	1,586	1,835	2,234	2,752	2,922
1,501 „ 3,000 ...	1,701	1,801	1,910	2,327	2,488
3,001 „ 5,000 ...	685	687	784	912	985
5,001 „ 10,000 ...	506	567	584	711	738
10,001 and over ...	656	694	722	711	706
Total ...	59,020	68,098	75,672	85,178	87,503

The holdings in the first area-group are, for the greater part, in the vicinity of towns, and, apart from those used for residential purposes only, consist mainly of gardens or orchards; the large increase in their number, representing 73 per cent. since 1895, is naturally to be expected from the steadily extending demand made by an increasing urban population for market-garden produce. In 1895, the holdings having an area of 51 to 1,500 acres numbered 33,885, while in 1911 they numbered 45,314, showing an advance of 34 per cent., which is slightly lower than the rate of increase, 38.6 per cent., in the holdings of 1,501 acres and upwards, which numbered 3,548 in 1895 and 4,917 in 1911.

The area of the alienated holdings, as returned by occupiers, in quinquennial periods since 1895 is given below :—

Size of Holding.	1895.	1900.	1905.	1910.	1911.
acres.	acres.	acres.	acres.	acres.	acres.
1 to 50 ...	395,209	462,212	486,203	501,589	503,677
51 „ 100 ...	635,160	708,394	720,243	724,909	722,604
101 „ 500 ...	4,594,270	4,953,889	5,428,153	6,175,692	6,346,059
501 „ 1,000 ...	3,965,071	4,222,946	4,622,272	5,331,666	5,526,680
1,001 „ 1,500 ...	1,990,433	2,280,673	2,744,051	3,378,235	3,589,526
1,501 „ 3,000 ...	3,611,487	3,822,440	4,030,908	4,932,698	5,270,697
3,001 „ 5,000 ...	2,654,673	2,667,894	3,047,469	3,490,908	3,771,576
5,001 „ 10,000 ...	3,578,787	3,988,538	4,171,754	4,928,884	5,120,548
10,001 and over ...	20,310,983	21,979,223	22,830,261	21,791,982	21,323,087
Total ...	41,736,073	45,086,209	48,081,314	51,256,563	52,174,454

ENCLOSED LANDS.

The greater portion of the alienated rural lands of the State have been enclosed; the following figures for quinquennial years since 1896, will show the rate at which the enclosure has proceeded, and the small proportion of alienated holdings which yet remains to be enclosed:—

Year ended 31st March.	Area Enclosed.	Area Unenclosed.	Total area of Holdings.	Unenclosed per cent. of Total Area of Holdings.
	Acres.	Acres.	Acres.	
1896	40,572,640	1,749,286	42,321,926	4.1
1901	44,553,481	1,489,763	46,043,244	3.2
1906	47,336,877	1,341,665	48,728,542	2.7
1911	51,210,709	963,745	52,174,454	1.8

For 1911 the unenclosed alienated lands represented almost 2 per cent. of the area alienated in holdings, and it is apparent that if the rates shown above are maintained the whole area of the holdings will be enclosed within a very short time.

PURPOSES FOR WHICH HOLDINGS ARE USED.

Analysis of the main purposes for which rural holdings of 1 acre and upwards are used, shows that of 93,769 holdings, inclusive of 6,266 which consist of Crown Lands only, rather more than one-third are single purpose holdings, being devoted to one or other of the three main branches of rural industry, viz., agriculture, dairying, or grazing; of the remainder, 54 per cent. are devoted to agriculture in conjunction with dairying or grazing, or both. The following statement shows, according to the divisions of the State, the numbers of such rural holdings and their principal method of utilisation for the year ended 31st March, 1911, and in comparison the totals under each head for 1909:—

Division.	Single-purpose Holdings.				Dual-purpose Holdings.			Residential, Mining, &c.
	Agriculture	Dairying.	Grazing.	Total.	Agriculture, with Dairying, and with Grazing.	Other.	Total.	
Coastal	4,085	3,209	7,709	15,003	12,572	1,779	14,351	15,614
Tableland	1,257	187	5,764	7,208	7,480	478	7,958	4,623
Western Slopes ..	880	63	3,433	4,376	8,461	346	8,807	3,361
Western Plains and Riverina	348	31	3,775	4,154	4,761	188	4,949	1,279
Western	107	3	1,089	1,199	108	16	124	813
Total, 1911 ..	6,677	3,493	21,770	31,940	33,382	2,767	36,139	25,690
„ 1909 ..	7,244	3,575	21,874	32,693	30,422	2,347	32,769	22,871

In the three years 1909-1911, the increase in the total number of rural holdings as recorded above was 6 per cent., but in that interval the number of holdings returned as dual-purpose holdings has increased by 10 per cent., while the single-purpose holdings have decreased 2 per cent., the biggest decrease being of holdings devoted to agriculture only.

EXTENT OF CULTIVATION.

The total area under crops for 1911 season, in all classes of holdings, was 3,381,921 acres, made up as follows:—

Division.	Area under crops.					Balance used for pasturage, grazing.	Proportion of cropped area to total area of Holdings.
	Alienated lands.		Crown lands.		Total.		
	Freehold.	Private Rented.	Attached to Holdings.	Separate.			
	acres.	acres.	acres.	acres.	acres.	acres.	per cent.
Coastal	215,097	88,949	967	2,212	307,225	12,652,782	2·4
Tableland	324,456	67,016	1,744	2,418	395,634	20,194,378	1·9
Western Slopes ...	1,309,077	77,006	78,725	47,121	1,511,929	19,472,863	7·2
Western Plains and Riverina ...	963,439	44,870	66,426	77,265	1,152,000	40,576,833	2·8
Western	6,485	330	4,562	3,756	15,133	78,160,587	·2
New South Wales	2,818,554	278,171	152,424	132,772	3,381,921	171,057,443	1·9

The area under crops on freehold lands represented 83 per cent. of the total area of rural holdings under crop, or 5·8 per cent. of the holdings of alienated lands; the area of leasehold lands under crop as compared with the total leasehold area was 7·7 per cent., but the areas under crops on holdings of Crown lands is insignificant when compared with the total extent of rural holdings.

Taking account of these Crown leases, there have been reductions, actual and proportionate, in the acreage attached to the holdings from 5,001 to 10,000, as well as in the largest group. The decrease in the percentage of land in holdings from 51 to 100 acres, noticeable in a preceding table, is not here apparent, as the area of Crown lands attached to these holdings was greater in 1911 than in 1905.

The next table shows the variation in cultivation in each series since 1905. The figures for 1911 include the cropped area of Crown lands held in conjunction with alienated, and, therefore, differ from those shown in an earlier table which relates to alienated land only.

Size of Holding.	Area cultivated.			
	Total.		Proportion in each series.	
	1905.	1911.	1905.	1911.
acres.	acres.	acres.	per cent.	per cent.
1 to 50 ...	109,335	100,428	4·37	3·09
51 „ 100 ...	122,177	107,737	4·89	3·32
101 „ 500 ...	740,670	830,250	29·60	25·55
501 „ 1,000 ...	511,381	763,627	20·44	23·50
1,001 „ 1,500 ...	212,863	380,866	8·51	11·72
1,501 „ 3,000 ...	255,854	415,097	10·23	12·78
3,001 „ 5,000 ...	126,654	201,872	5·06	6·21
5,001 „ 10,000 ...	122,713	167,472	4·90	5·16
10,001 and over ...	300,159	281,800	12·00	8·67
Total ...	2,501,856	3,249,149	100·00	100·00

In proportion to the total cultivation, it is apparent that the extension of agriculture has taken place on estates from 501 to 5,000 acres, the increase being most noticeable in the groups 501 to 1,000 and 1,001 to 1,500 acres. The proportionate decrease in the cultivation of the small holdings is mainly due to the preference now given to dairy farming in the coastal division, where the majority of these holdings are situated.

DOUBLE CROPPING.

Records available since 1899 show that there has been considerable fluctuation in the area double cropped, but on the whole there is a persistent upward tendency. The following statement shows in comparison the areas under crop and the area double cropped at intervals since 1899 :—

Year ended March.	Area double cropped.	Actual area under crop on—	
		Alienated lands.	Crown lands.
	acres.	acres.	acres.
1899	2,000	2,137,306	67,194
1901	1,203	2,341,955	103,609
1906	2,154	2,644,408	193,673
1911	4,096	3,096,725	285,196

Particulars in regard to the production from cultivated lands are given in part "Agriculture" of this Year Book.

GRASSED LANDS.

A considerable area of alienated enclosed land is under sown grasses; on Crown lands also the area grassed is appreciable. The following figures show the extension of the area under sown grasses since 1896 :—

Year ended March.	Area under Sown Grasses on—		Total.
	Alienated land.	Crown lands.	
	acres.	acres.	acres.
1896	284,937	15,925	300,862
1901	399,941	22,800	422,741
1906	606,300	21,230	627,530
1911	1,010,734	44,569	1,055,303

The area of alienated holdings ringbarked, partially cleared, and under native grasses at 31st March, 1911, was approximately $3\frac{1}{4}$ million acres, and on Crown lands $27\frac{1}{2}$ million acres.

HOLDINGS IN AREA SERIES.

Below will be found the number of holdings of various sizes throughout the State, composed of alienated and attached Crown Lands :—

Size of Holding.	Freehold.	Private Rented.	Combined Freehold and Private Rented.	Combined Alienated and Crown Lands.	Total.
acres.					
1 to 50	26,294	7,751	1,440	1,787	37,272
51 „ 100	4,997	2,008	496	1,658	9,159
101 „ 500	13,027	3,482	1,623	7,190	25,322
501 „ 1,000	4,088	400	519	2,904	7,911
1,001 „ 1,500	1,473	96	176	1,177	2,922
1,501 „ 3,000	1,090	71	135	1,192	2,488
3,001 „ 5,000	363	20	59	543	985
5,001 „ 10,000	264	10	37	427	738
10,001 „ 15,000	67	4	12	147	230
15,001 „ 20,000	21	2	4	87	114
20,001 „ 30,000	32	3	4	137	176
30,001 „ 40,000	10	...	...	42	52
40,001 „ 50,000	5	...	1	33	39
50,001 and over	12	...	...	83	95
Total	51,743	13,847	4,506	17,407	87,503

The total number of occupiers of freeholds only is 51,743, the proportion to the total number of occupiers being fairly constant in each size of holdings. Tenants of private lands, who number 13,847, are far more numerous in the smaller classes of holdings, and rapidly diminish both in number and in proportion as the estates become larger. The same is the case with regard to holders of freehold and private rented land, who number only 4,506. The persons who occupy alienated areas with Crown lands attached number 17,407, and 54·7 per cent. of the holdings over 1,500 acres in extent are in this category.

Comparison of the relation of the various classes to the total number of holdings for the last two years shows a slight increase in the proportion of freeholds, corresponding practically to a decrease in the proportion of private-rented holdings, but on the whole the variations are slight, viz:—

Holding.	1910.	Proportion to Total.	1911.	Proportion to Total.
	Number.	per cent.	Number.	per cent.
Freehold	49,841	58·5	51,743	59·1
Private-rented	13,870	16·3	13,847	15·8
Combined freehold and private-rented ...	4,413	5·2	4,506	5·2
Combined alienated and Crown land ...	17,054	20·0	17,407	19·9
Total	85,178	100·0	87,503	100·0

AREA OF HOLDINGS.

The area of the alienated holdings referred to in the table given previously, whether freehold, private rented, or with attached Crown land, will be found in the figures subjoined, which also show the percentage of the total area occupied in holdings of each size:—

Size of Holding.	Area Occupied.				Proportion to Total Occupied.			
	Freehold.	Private Rented.	Crown Land attached to Alienated.	Total.	Freehold.	Private Rented.	Crown Land attached to Alienated	Total.
acres.	acres.	acres.	acres.	acres.	per cent.	per cent.	per cent.	per cent.
1 to 5	387,526	116,151	1,766,700	2,270,377	·26	·05	1·19	1·52
51 ,, 100	540,323	182,281	1,231,954	1,954,558	·36	·12	·83	1·31
101 ,, 500	5,321,805	1,024,254	12,860,834	19,206,893	3·59	·69	8·68	12·96
501 ,, 1,000	5,015,534	511,146	16,497,278	22,023,958	3·39	·35	11·14	14·88
1,001 ,, 1,500	3,310,673	278,853	9,916,996	13,506,522	2·23	·19	6·70	9·12
1,501 ,, 3,000	4,823,025	447,672	15,054,647	20,325,344	3·26	·30	10·17	13·73
3,001 ,, 5,000	3,519,950	251,626	12,767,706	16,539,282	2·38	·17	8·62	11·17
5,001 ,, 10,000	4,797,508	323,040	9,894,389	15,014,937	3·24	·22	6·68	10·14
10,001 ,, 15,000	2,636,261	159,346	3,562,194	6,357,801	1·78	·11	2·41	4·30
15,001 ,, 20,000	1,916,377	50,888	2,862,811	4,830,076	1·29	·03	1·93	3·25
20,001 ,, 30,000	4,013,756	212,434	3,677,000	7,903,190	2·71	·14	2·48	5·33
30,001 ,, 40,000	1,802,035	9,174	1,382,385	3,193,594	1·22	·01	·93	2·16
40,001 ,, 50,000	1,759,783	12,451	2,117,759	3,889,993	1·19	·01	1·43	2·63
50,001 and over	8,706,652	43,930	2,336,041	11,086,623	5·88	·03	1·58	7·49
Total	48,551,208	3,623,246	95,928,694	148,103,148	32·78	2·45	64·77	100·00

The following table shows the alienated area and the Crown Lands attached thereto, classified according to the size of private holdings :—

Size of Holding. acres.	Holdings.		Area Alienated.		Crown Land attached to Alienated lands.	
	Number.	Percentage of total Holdings.	Acres.	Percentage of total Alienated Area.	Acres.	Percentage of total Crown land attached to Alienated.
1 to 15 ...	26,021	29·74	121,759	·23	347,274	·36
16 „ 50 ...	11,251	12·86	381,918	·73	1,419,426	1·48
51 „ 100 ...	9,159	10·47	722,604	1·39	1,231,954	1·28
101 „ 500 ...	25,322	28·94	6,346,059	12·16	12,860,834	13·41
501 „ 1,000 ...	7,911	9·04	5,526,680	10·59	16,497,278	17·20
1,001 „ 1,500 ...	2,922	3·34	3,589,526	6·88	9,916,996	10·33
1,501 „ 2,000 ...	1,220	1·39	2,144,526	4·11	4,751,795	4·95
2,001 „ 3,000 ...	1,268	1·45	3,126,171	5·99	10,302,852	10·74
3,001 „ 4,000 ...	619	·71	2,133,318	4·09	7,730,233	8·05
4,001 „ 5,000 ...	366	·42	1,638,258	3·14	5,037,473	5·25
5,001 „ 7,500 ...	486	·55	2,940,668	5·64	6,871,226	7·16
7,501 „ 10,000 ...	252	·29	2,179,880	4·18	3,023,163	3·15
10,001 „ 15,000 ...	230	·26	2,795,607	5·36	3,562,194	3·71
15,001 „ 20,000 ...	114	·13	1,967,265	3·77	2,862,811	2·98
20,001 „ 30,000 ...	176	·20	4,226,190	8·10	3,677,000	3·83
30,001 „ 40,000 ...	52	·06	1,811,209	3·47	1,382,385	1·44
40,001 „ 50,000 ...	39	·04	1,772,234	3·40	2,117,759	2·28
50,001 and over ...	95	·11	8,750,582	16·77	2,336,041	2·40
Total ...	87,503	100·00	52,174,454	100·00	95,928,694	100·00

It is one of the features of the table, that whilst the holders of estates exceeding 1,000 acres constitute but 8·91 per cent. of the total number of occupiers, the land held represents 74·90 per cent. of the total alienated area. This is still more accentuated in the case of 95 holdings of 50,001 acres and upwards, which represent only 0·11 per cent. of the total number of holdings, but embrace 16·77 per cent. of the area alienated.

CROWN LANDS.

Crown Lands are held, as has been explained, either in conjunction with alienated land or as separate holdings. The total area held in conjunction with alienated lands at 31st March, 1911, was 95,928,694 acres, attached to 17,407 holdings, and particulars as to the distribution, cultivation, &c., of this area are given in connection with the alienated lands. Holdings, consisting of Crown lands only, numbered 6,266, representing 26,336,216 acres, of which nearly 70 per cent. was in the Western Division. The following figures show the distribution of these holdings in the different divisions of the State :—

Division.	Holdings.	Area held.	Area cultivated.
	Number.	Acres.	Acres.
Coastal	995	461,192	2,212
Tableland	951	866,734	2,418
Western Slopes	1,316	2,089,420	47,121
Western Plains and Riverina	2,052	6,302,997	77,265
Western	952	16,615,873	3,756
New South Wales	6,266	26,336,216	132,772

SETTLEMENT IN LAND DIVISIONS.

The zones into which the country may be geographically divided are five, viz., Coast, Tableland, Western Slopes of the Great Dividing Range, Western Plains and Riverina, and the Western Division. Each zone, having its own special character, offers different natural resources according to its climatic conditions. From Sydney as centre, settlement extended first along the coast, then to the central and more readily accessible parts of the tableland, following afterwards the course of the great inland rivers towards the southern and western parts of the State; thence to the great plains of the west, and across the river Darling.

Geographical features and climate have been the primary factors in determining the trend of settlement, and other considerations, such as soil fertility, distribution of rainfall, density of timber growth, and consequent cost and difficulty of clearing, &c., naturally regulate the character of rural settlement in a given locality and the purposes to which lands are applied.

But of more vital importance than considerations of soil fertility and climate is the question of communication between the sparsely settled and the populous centres, and accessibility to a good market which will assure to the settler some certainty of disposing of his products, and permit an effort to regulate such products according to the demands of the market. In this connection it is interesting to notice how agricultural settlement has clung to the closer and more accessible coastal lands; thus, of 6,677 purely agricultural holdings in 1911, 4,085 were in the Coastal Division, and 1,257 in the Tableland.

The returns which follow show the holdings of alienated land classified according to size, the Crown land attached to such holdings, and the area devoted to agriculture or used for pastoral purposes. As in previous tables, the figures for each Division are exclusive of holdings made up of Crown leases only.

COASTAL DIVISION.

That part of the county of Cumberland which embraces the metropolis and its suburbs is outside the limits of this examination, as it is not intended to inquire into the present condition of urban settlement, inasmuch as in the subdivisions and the distribution of landed property in the city and suburbs of Sydney there is now little difference between this and much older communities. The figures given below relate only to rural settlement in the remaining portion of the State.

From the county of Cumberland settlement advanced westward, and after the alluvial lands of the Hawkesbury and Nepean valleys had been occupied, the lower portion of the valley of the river Hunter, abounding with natural resources, agricultural as well as mineral, soon attracted settlers; and at the present time more population is concentrated in this district than in any other part of New South Wales outside the metropolitan area. Settlement gradually extended to the whole of the watershed of the Hunter and Manning Rivers.

The North Coast district, which is occupied by a farming population, exhibits the most satisfactory results as regards settlement, which, during recent years, has extended very rapidly along the banks of the rivers.

In the early nineteenth century settlement took a southerly direction from the metropolis, and extended rapidly along the lower valleys of the rivers of the South Coast, where the best lands were alienated in grants of large areas to a few families. Later on, however, the nature of the country and a more intelligent conception of the principles which should guide settlement brought about the subdivision of these large estates into numerous small holdings.

The following table shows the settlement of the Coastal Division in holdings of 1 acre and over made up of alienated lands or alienated lands in conjunction with Crown lands :—

Size of Holding.	Number of Holdings.	Area occupied.			Area under—	
		Alienated.	Crown Lands attached to alienated holdings.	Total.	Crops.	Grazing, &c.
acres.		acres.	acres.	acres.	acres.	acres.
1 to 50 ...	23,377	310,265	138,709	448,974	56,683	392,291
51 „ 100 ...	5,647	443,404	159,473	602,877	49,946	552,931
101 „ 500 ...	12,044	2,735,317	1,089,848	3,825,165	135,815	3,689,350
501 „ 1,000 ...	1,785	1,237,435	578,976	1,816,411	29,976	1,786,435
1,001 „ 1,500 ...	487	593,156	367,390	950,546	8,964	941,582
1,501 „ 3,000 ...	375	797,060	397,762	1,194,822	9,367	1,185,455
3,001 „ 5,000 ...	125	476,517	321,762	798,279	5,009	793,270
5,001 „ 10,000 ...	86	596,641	361,273	957,914	2,601	955,313
10,001 and over ...	47	1,173,112	730,715	1,903,827	6,652	1,897,175
Coastal Division...	43,973	8,362,907	4,135,908	12,498,815	305,013	12,193,802

The total area of this Division is 22,355,401 acres, of which 8,362,907 acres have been alienated, and 4,135,908 acres of Crown land are held in conjunction with the alienated, making a total of 12,498,815 acres.

Holdings under 51 acres represent 53·2 per cent. of the total number, and are generally market gardens and orchards in the vicinity of towns. The moderate-sized holdings consist mainly of dairy-farms; the area under crop was 305,013 acres, being 10,608 acres less than for the previous year.

Rural settlement in the valleys of the northern coastal rivers, and in the country extending from the sea to the first slopes of the Great Dividing Range, has proceeded in a way very different from that of the tableland, which extends from north to south, and divides the rich agricultural valleys of the coastal rivers and their broken mountainous watershed from the immense plains of the western district.

TABLELAND DIVISION.

After crossing the ranges which form the western boundary of the coastal strip, settlement proceeded in the central tableland, thence south and north, and later westwards, at first following the courses of the great rivers.

In the northern tableland the disproportion between freeholders and tenants is strongly marked, the latter forming a very small minority of the occupiers of alienated land.

The following statement shows the actual state of rural settlement in the Tableland Division :—

Size of Holding.	Number of Holdings	Area Occupied.			Area under—	
		Alienated.	Crown Land Attached to Alienated Holdings.	Total.	Crops.	Grazing, &c.
acres.		acres.	acres.	acres.	acres.	acres.
1 to 50 ...	6,680	102,673	389,883	492,556	18,953	473,603
51 „ 100 ...	2,001	158,342	298,629	456,971	23,249	433,722
101 „ 500 ...	6,540	1,667,700	2,668,484	4,336,184	160,550	4,175,634
501 „ 1,000 ...	1,771	1,245,903	1,226,007	2,471,910	66,633	2,405,277
1,001 „ 1,500 ...	652	802,742	667,817	1,470,559	27,994	1,442,565
1,501 „ 3,000 ...	609	1,279,500	1,273,693	2,553,193	35,918	2,517,275
3,001 „ 5,000 ...	235	911,684	575,528	1,487,212	18,870	1,468,342
5,001 „ 10,000 ...	196	1,362,898	871,000	2,233,898	14,671	2,219,227
10,001 and over ...	154	2,963,770	1,257,025	4,220,795	26,378	4,194,417
Tableland Division ...	18,838	10,495,212	9,228,066	19,723,278	393,216	19,330,062

WESTERN SLOPES.

The districts situated on the Western Slope of the Great Dividing Range mark the transition between the agricultural settlements of the coast and the tableland, and the purely pastoral settlements of the Great Western plains. The extent of arable land in the Western Slopes is very large; and, although the proportion devoted to cultivation is greater than in any other Division, in comparison with the total area it is inconsiderable. Distance from a market has been the principal obstacle to a rapid extension of agriculture; but, with expansion of the railways during the last ten years, improvement in methods of wheat-growing, and extension of share farming, a considerable impetus has been given to agriculture.

In the South-western Slope, which is traversed by the principal permanent rivers of western New South Wales, the land has been alienated to a large extent, and immense areas of freehold land are in the hands of a small number of landholders. The state of settlement in the Western Slopes may be gathered from the following table:—

Size of Holding.	Number of Holdings.	Area Occupied.			Area under—	
		Alienated.	Crown Lands attached to alienated Holdings.	Total.	Crops.	Grazing, &c.
acres.		acres.	acres.	acres.	acres.	acres.
1 to 50 ...	5,016	66,276	85,553	151,829	19,177	132,652
51 „ 100 ...	1,100	87,542	72,541	160,083	28,161	131,922
101 „ 500 ...	4,727	1,328,887	1,231,494	2,560,381	362,200	2,198,181
501 „ 1,000 ...	2,199	1,539,134	1,250,200	2,789,334	351,256	2,438,078
1,001 „ 1,500 ...	818	1,004,706	531,423	1,536,129	180,044	1,356,085
1,501 „ 3,000 ...	691	1,490,922	948,508	2,439,430	200,985	2,238,445
3,001 „ 5,000 ...	282	1,080,869	699,466	1,780,335	104,746	1,675,589
5,001 „ 10,000 ...	220	1,540,132	710,673	2,250,805	91,659	1,159,146
10,001 and over. ...	175	4,153,874	1,073,172	5,227,046	126,580	5,100,466
Western Slopes...	15,228	12,292,342	6,603,030	18,895,372	1,464,808	16,430,564

WESTERN PLAINS AND RIVERINA.

The portion of the Central Land Division of New South Wales which lies beyond the Western Slopes of the Great Dividing Range constitutes the Division known as the Western Plains and Riverina. The Riverina is the southern portion, and may be considered as the most important agricultural Division of the State, not only on account of the total area alienated, but also from the fact that it contains a considerably larger area under cultivation than any other Division, except the Western Slopes; at the same time the average size of the holdings is extremely large.

Following are the figures showing the development of settlement and cultivation in the Western Plains and Riverina:—

Size of Holding.	Number of Holdings.	Area Occupied.			Area under—	
		Alienated.	Crown lands attached to Alienated Holdings.	Total.	Crops.	Grazing, &c.
acres.		acres.	acres.	acres.	acres.	acres.
1 to 50 ...	1,601	18,502	231,218	249,720	4,911	244,809
51 „ 100 ...	342	27,477	72,691	100,168	6,018	94,150
101 „ 500 ...	1,846	571,792	875,815	1,447,607	170,370	1,277,237
501 „ 1,000 ...	2,024	1,413,381	1,941,634	3,355,015	313,451	3,041,564
1,001 „ 1,500 ...	905	1,114,606	2,074,274	3,188,880	163,179	3,025,701
1,501 „ 3,000 ...	759	1,587,805	2,033,602	3,621,407	167,578	3,453,829
3,001 „ 5,000 ...	301	1,137,408	1,608,108	2,745,516	71,032	2,674,484
5,001 „ 10,000 ...	207	1,418,527	1,723,173	3,141,700	57,682	3,084,018
10,001 and over....	295	12,080,438	5,495,385	17,575,823	120,514	17,455,309
Western Plains and Riverina ...	8,280	19,369,936	16,055,900	35,425,836	1,074,735	34,351,101

THE WESTERN DIVISION.

In the extreme west of the State settlement progresses slowly. The great mining centre of Broken Hill, situated close to the boundary line between New South Wales and South Australia, has attracted a large population, but excluding this closely settled area the whole Western Division of New South Wales is given up to the depasturing of stock.

The present state of rural settlement in the Western Division is illustrated by the figures given below :—

Size of Holding.	Number of Holdings.	Area occupied.			Area under—	
		Alienated.	Crown lands attached to alienated Holdings.	Total.	Crops.	Grazing, &c.
acres.		acres.	acres.		acres.	acres.
1 to 50 ...	598	5,961	921,337	927,298	704	926,594
51 „ 100 ...	69	5,839	628,620	634,459	363	634,096
101 „ 500 ...	165	42,363	6,995,193	7,037,556	1,315	7,036,241
501 „ 1,000 ...	132	90,827	11,500,461	11,591,288	2,311	11,588,977
1,001 „ 1,500 ...	60	74,316	6,286,092	6,360,408	685	6,359,723
1,501 „ 3,000 ...	54	115,410	10,401,082	10,516,492	1,249	10,515,243
3,001 „ 5,000 ...	42	165,098	9,562,842	9,727,940	2,215	9,725,725
5,001 „ 10,000 ...	29	202,350	6,228,270	6,430,620	859	6,429,761
10,001 and over. ...	35	951,893	7,381,893	8,333,786	1,676	8,332,110
Western Division ...	1,184	1,654,057	59,905,790	61,559,847	11,377	61,548,470

The proportion of land alienated is little more than 2 per cent. of the total area, being an aggregate of 1,654,057 acres out of 80,368,498 acres which the division is estimated to contain. The land in the Western Division can only be alienated by auction or held under lease from the Crown. The area of Crown lands held is therefore very large, 59,905,790 acres being attached to alienated holdings, and representing a slight decrease as compared with the year 1910. The general character of the country militates against agricultural production and the successful rearing of cattle; sheep-breeding is practically the only industry, except in the vicinity of townships, where market-gardens and fruit orchards are found.

THE CLOSER SETTLEMENT MOVEMENT.

In discussing Land Legislation and Settlement an account is given of the progress of the movement for the extension of rural settlement on relatively small areas, which was inaugurated with the Act of 1901 and adapted by subsequent Acts to prevailing conditions. Below are given figures which indicate to some extent the effect of the operation of the Acts upon the holdings of the State, and in this connection it is essential to determine the minimum as well as the maximum area which under close settlement would constitute a living area. The standard here taken is that practically set up by settlers themselves, as expressed by the ratio which the land used for agriculture bears to the total acreage of alienated lands in rural holdings in the several area series, on the supposition that, where it is evidently more profitable to the holder to devote his holding to pursuits other than agriculture, it may be assumed he has more than a living area, and is not obliged to devote the land to any great extent to intense cultivation.

The following figures show how far this view may be taken to indicate the required area limit. The acreage of alienated land in holdings in each series is given, also the area cultivated, and a percentage column is added, showing the ratio of the latter to the former :—

Size of Holding.	Alienated Area in Holdings.		Proportion of Cultivated Area to total alienated area in Holdings.
	Total .	Cultivated.	
acres.	acres.	acres.	per cent.
1 to 50	503,677	93,793	18·62
51 „ 100	722,604	102,549	14·19
101 „ 500	6,346,059	783,889	12·35
501 „ 1,000	5,526,680	718,900	13·01
1,001 „ 1,500	3,589,526	363,841	10·14
1,501 „ 3,000	5,270,697	392,685	7·45
3,001 „ 5,000	3,771,576	196,947	5·22
5,001 „ 10,000	5,120,548	163,774	3·20
10,001 and over	21,323,087	280,347	1·31
Total	52,174,454	3,096,725	5·94

The area under crop invariably decreases in ratio per cent. as the size of the holding increases, and for the whole State the cropped area is about 6 per cent. of the total area alienated in rural holdings of one acre and over. Taking this proportion as indicative of the average extent to which agriculture may be undertaken profitably it is arguable that any land devoted to agriculture to a greater extent, as indicated by a higher area percentage, is especially suited under present conditions for that purpose; and also that the largest average area of land thus utilised represents the area necessary for settlement of that description.

Reference to the table shows that the series 1,501 to 3,000 acres contains the largest average areas wherein more than the average 6 per cent. of crop area is in evidence; consequently it may be conceded that a reasonable limit for an effective agricultural area is to be found within this series. Taking a moderate view of the matter, it has been assumed that the lowest area of this series, 1,501 acres, is the area limit.

A comparative statement of the number and area of holdings of alienated lands in area groups as at March, 1905, when the closer settlement policy was commencing to operate actively, and 1911, is given below, also the proportions in each series :—

Size of Holding.	Number of Holdings.		Alienated Area.		Percentage in each series.			
					Holdings.		Area.	
	1905.	1911.	1905.	1911.	1905.	1911.	1905.	1911.
* acres.			acres.	acres.				
1 to 50 ...	31,734	37,272	486,203	503,677	41·94	42·59	1·01	·97
51 „ 100 ...	9,108	9,159	720,243	722,604	12·04	10·47	1·50	1·39
101 „ 500 ...	21,989	25,322	5,428,153	6,346,059	29·06	28·94	11·29	12·16
501 „ 1,000 ...	6,607	7,911	4,622,272	5,526,680	8·73	9·04	9·61	10·59
1,001 „ 1,500 ...	2,234	2,922	2,744,051	3,589,526	2·95	3·34	5·71	6·88
1,501 „ 3,000 ...	1,910	2,488	4,030,908	5,270,697	2·52	2·84	8·38	10·10
3,001 „ 5,000 ...	784	985	3,047,469	3,771,576	1·04	1·13	6·34	7·23
5,001 „ 10,000 ...	584	738	4,171,754	5,120,548	·77	·84	8·68	9·81
10,001 and over.	722	706	22,830,261	21,323,087	·95	·81	47·48	40·87
Total ...	75,672	87,503	48,081,314	52,174,454	100·00	100·00	100·00	100·00

The number of holdings has increased in the six years from 75,672 to 87,503, or by 15·6 per cent., and the area from 48,081,314 acres to 52,174,454 acres, or by 8·5 per cent. There have been increases in the number and acreage of all the area groups except that of 10,001 acres and over, and the reduction of the very large holdings has been concurrent with a percentage increase in all the smaller groups.

If account be taken of the Crown lands held by a number of occupiers in addition to the alienated areas the proportionate weighting of the various groups is considerably altered. A comparative statement is therefore given, showing the acreage in occupation, inclusive of the Crown lands attached to estates in each area series. The estates have been classified, as in previous tables, according to the extent of private land only:—

Size of Holding.	Area occupied, including Crown lands attached to alienated holdings.		Percentage area in each series.	
	1905.	1911.	1905.	1911.
acres.	acres.	acres.		
1 to 50 ...	2,050,314	2,270,377	1·38	1·53
51 „ 100 ...	1,713,464	1,954,558	1·16	1·32
101 „ 500 ...	17,261,607	19,206,893	11·66	12·97
501 „ 1,000 ...	19,105,229	22,023,958	12·91	14·87
1,001 „ 1,500 ...	11,394,537	13,506,522	7·70	9·12
1,501 „ 3,000 ...	19,994,336	20,325,344	13·50	13·72
3,001 „ 5,000 ...	16,166,642	16,539,282	10·92	11·17
5,001 „ 10,000 ...	15,384,516	15,014,937	10·39	10·14
10,001 and over ...	44,973,165	37,261,277	30·38	25·16
Total ...	148,043,810	148,103,148	100·00	100·00

POPULATION.

THE publication of this chapter has been delayed, awaiting the results of the Census taken on 2nd April, 1911, to admit of the revision of the annual estimates of population during the inter-censal period 1901-1911. Such particulars of the census population as are available are now given, and complete information will be published at an early date in the Official Year Book.

EARLY ENUMERATIONS.

In the days of early settlement it was necessary to enumerate the people at frequent intervals on account of their dependency on the public stores. Information regarding the population from the foundation of New South Wales in 1788, when Governor Phillip landed with about 1,030 persons, until the first census in 1828 depends on the records of these enumerations or "musters." The records were not always reliable, as the musters were often carried out under faulty conditions.

The growth of New South Wales for many years was very slow, and the population was diminished in 1803 by the formation of a settlement at Van Diemen's Land, now known as the State of Tasmania. The following table shows, as nearly as can be ascertained, the probable population of New South Wales, including Norfolk Island, at quinquennial intervals from the end of the year 1790 until the year 1825:—

Year.	Total Population.	Year.	Total Population.
1790	2,800	1810	10,100
1795	4,500	1815	13,300
1800	6,200	1820	25,300
1805	7,400	1825	33,500

Only the totals are given, since for the period of the "musters" very scanty details are available, the sexes of the children being unstated.

The first census was taken during the month of November, in the year 1828, the result showing a total of 36,598 persons, of whom 27,611 were males and 8,987 females, the remarkable disparity of approximately 3 to 1 exhibiting a preponderance of the male sex.

The slow growth during the forty years to which the previous figures relate was followed by a rapid increase in population, induced by the steady development which resulted from the progressive public policy inaugurated during the governorship of Sir Richard Bourke. A system of immigration was introduced on a scale of annually increasing dimensions, which appeared in definite strength in the year 1832, so that at the end of 1833 the population had increased to 61,000, being an advance of 27,500 on the number for the year 1825, or at the rate of 82 per cent. for the period of eight years.

The population at each census from 1828 to 1856, the date of the establishment of Responsible Government, was as follows:—

Date of Census.	Males.	Females.	Total.	Increase.	
				Numerical.	Centesimal.
— Nov., 1828 ...	27,611	8,987	36,598	.....	...
2 Sept., 1833 ...	44,644	16,150	60,794	24,196	66·1
2 Sept., 1836 ...	55,539	21,557	77,096	16,302	26·8
2 Mar., 1841 ...	87,298	43,558	130,856	53,760	69·7
2 Mar., 1864 ...	114,769	74,840	189,609	58,753	44·9
1 Mar., 1851 { Incl. Vic. }	155,845	112,499	268,344	78,735	41·5
{ Excl. Vic. }	109,643	81,356	190,999	.....	.....
1 Mar., 1856 ...	150,488	119,234	269,722	78,723	41·2

The discoveries of the explorers during the early period had opened vast areas of inland country to pastoral and agricultural occupation, and the system of assisted immigration, inaugurated in 1832, was energetically carried out. With the rapid expansion of settlement a great demand for labour was created, and the high rates of wages attracted a large influx of unassisted immigrants. The most powerful factor in promoting the development of Australia, however, was the discovery of rich gold-fields in 1851.

Victoria was founded in July, 1851, by the separation of the Settlement of Port Phillip, with a population of 77,345, from New South Wales. For the purposes of comparison, the population at the census of 1851 has been shown in the above table, both inclusive and exclusive of Victoria.

After the year 1856 there was yet another reduction in the territory of New South Wales, when, in 1859, Queensland, with a population of 16,907, was separated from New South Wales.

CENSUS ENUMERATIONS, 1861-1911.

The first census taken after New South Wales was restricted to its present limits was on the 7th April, 1861, when the ascertained population was 350,860. Thereafter the numbers were determined decennially, the last census having been taken on the 2nd April, 1911, when the population had increased to 1,650,460. The population at each census period from 1861 to 1911 will be seen below. Aboriginal natives are included, except for 1861, when they were not enumerated; their number in 1911 was 2,022 (1,157 males and 865 females). The population of the Federal Capital area—997 males, 727 females; 1,724 persons, of whom 10 were aborigines—is also included.

Year.	Males.	Females.	Total.	Numerical Increase.
1861	198,488	152,372	350,860	.....
1871	275,551	228,430	503,981	153,121
1881	411,149	340,319	751,468	247,487
1891	612,562	519,672	1,132,234	380,766
1901	712,456	646,677	1,359,133	226,899
1911	859,847	790,623	1,650,470	291,337

The relative increase from census to census, may be measured according to the several methods shown in the following statement. In the first column, the population in 1861 is taken as a basis:—

Year.	Index Number of Population.	Total increase for each period.	Increase per annum for period.	Persons per square mile.
		per cent.	per cent.	
1861	100	.....	.....	1·12
1871	144	43·64	3·69	1·61
1881	214	49·11	4·08	2·41
1891	323	50·67	4·19	3·64
1901	387	20·04	1·84	4·38
1911	470	21·43	1·96	5·32

The population has increased more than fourfold since 1861, and has more than doubled since 1881, but there has been a great falling-off in the rate of increase since 1891. Prior to that year the annual increase was about 4 per cent., but thence onward to 1904 it was under 2 per cent. Since 1904 the rate of increase has advanced, and was, in 1907, higher than at any time since 1891. In 1861 the number of persons per square mile was 1·1, in 1891 it was 3·6, and in 1911 it was 5·3.

The following statement gives the population of each State of the Commonwealth at the last census, in comparison with the Census of 1901, and the average annual rate of increase during the period. The figures are exclusive of full-blooded aborigines; the population of the Federal Capital Territory (1,714) is included with New South Wales in 1911, and the figures for South Australia include the population of the Northern Territory—4,811 in 1901 and 3,310 in 1911 :—

State.	Census Population.		Proportion in each State.		Average Annual Rate of Increase per cent.
	1901.	1911.	1901.	1911.	
New South Wales ...	1,354,846	1,648,448	35·91	37·00	1·98
Victoria ...	1,201,070	1,315,551	31·83	29·53	0·91
Queensland ...	498,129	605,813	13·20	13·60	1·98
South Australia ...	362,604	411,868	9·61	9·25	1·28
Western Australia ...	184,124	282,114	4·88	6·33	4·36
Tasmania ...	172,475	191,211	4·57	4·29	1·04
Commonwealth ...	3,773,248	4,455,005	100·	100·	1·67

The average annual increase of the Commonwealth during the intercensal period was 1·67 per cent. The rate was highest in Western Australia, 4·36 per cent. New South Wales and Queensland rank next with 1·98 per cent. Victoria showed the lowest rate, 0·91 per cent. The population of New South Wales, in 1911, represented 37 per cent. of the population of Australia as compared with 35·9 per cent. in 1901.

ESTIMATES OF POPULATION.

Reliable estimates of the population are required during the intercensal periods for many purposes affecting the welfare of the community. Apart from the statistical value as the standard by which other statistics are measured, the population is used as the basis of important political and financial arrangements between the Government of the Commonwealth of Australia and the individual States, for instance, the distribution amongst the States of the representation in the Federal Parliament.

The elements of increase of the population are the excess of births over deaths, which is termed "natural increase," and the excess of immigration over emigration. The registers of births and deaths ensure a reliable return of the natural increase, but it is unfortunate that the records of arrivals and departures are defective, as in a young and progressive country as New South Wales, the element of migration is extremely variable.

Experience shows that, while the records of overland migration are by no means perfect, they give with fair accuracy the gain or loss to the State across its borders. In the case of the sea traffic, however, the returns are less reliable, as there are persons who go on board vessels after the passenger list has been completed, and whose departure is not recorded. A conference of Australian Statisticians, held in 1906, agreed upon a method of estimating the population as follows :—

That the Census of 1901 be taken as the starting-point, and the future estimates of population be published from that basis.

That the Registrar-Generals' returns of Births and Deaths, and the Customs and Railway Departments' Certificates of arrivals and departures be accepted for the compilations.

That 10 per cent. be added to the railway returns of arrivals and departures by land for New South Wales, Victoria, Queensland, and South Australia to allow for unrecorded traffic by rail and road.

That the following percentages on recorded departures by sea be added thereto for the unrecorded departures :—New South Wales, 9 ; Victoria, 9 ; Queensland, 10 ; South Australia, 7 ; Western Australia, 5 ; and Tasmania, 12·5.

That the elements of population be published quarterly on a uniform basis.

That where the distribution of sexes of persons travelling overland is unknown the proportion of males and females be fixed on the basis of the recorded sea traffic for the corresponding period.

That full-blooded aborigines be excluded from the populations, but shown on a separate line in the estimates of population.

That henceforth the mean population of each of the four quarters be taken, and the mean of these be accepted as the mean of the year.

That seamen discharged, or having deserted, and all seamen signing on, be taken into account as arrivals and departures respectively.

The estimated population at the end of each year since 1901 is as follows :—

Year.	Estimated Population at end of Year.			Annual Increase.	
	Males.	Females.	Total.	Numerical.	Per cent.
1901	720,762	656,886	1,377,648	13,058	·96
1902	734,051	669,146	1,403,197	25,549	1·85
1903	744,951	679,798	1,424,749	21,552	1·53
1904	760,576	691,648	1,452,224	27,475	1·93
1905	777,923	706,155	1,484,078	31,854	2·19
1906	794,894	721,268	1,516,162	32,084	2·16
1907	814,585	738,418	1,553,003	36,841	2·43
1908	825,783	753,404	1,579,187	26,184	1·69
1909	838,527	768,698	1,607,225	28,038	1·78
1910	854,165	785,557	1,639,722	32,497	2·02

SOURCES OF INCREASE.

The following statement shows the extent to which the growth of the population is due to each source during the census periods from 1861 :—

Period.	Increase.			Increase per annum.		
	By excess of Births over Deaths.	By excess of Immigration over Emigration.	Total Increase.	By excess of Births over Deaths.	By excess of Immigration.	Total.
				per cent.	per cent.	per cent.
1861-71 ...	106,077	47,044	153,121	2·68	1·27	3·69
1871-81 ...	140,382	107,105	247,487	2·49	1·95	4·08
1881-91 ...	211,301	169,465	380,766	2·51	2·05	4·19
1891-1901 ...	226,676	223	226,899	1·84	...	1·84
1901-11 ...	247,871	43,456	291,327	1·69	0·32	1·96

The rate of natural increase has fallen steadily throughout each period, and reached its lowest point in 1903, when it was only half the average annual rate during the period 1861-71. The fall was caused by the declining birth-rate, as the death-rate has shown constant improvement. During the last seven years, however, the rate has risen, the excess of births in 1910 being the highest yet recorded.

The migration increase advanced steadily during each intercensal period up to 1891. During the decade 1861-1871, after the excitement of the gold discoveries had abated, a reaction set in, and public interest was again directed to the pastoral and agricultural industries. The policy of encouragement and assistance to immigrants was continued, and the Crown Lands were thrown open to free selection. During the following periods, the construction of railways and other public works increased the demand for labour; consequently, many persons were attracted to the State by the ease with which employment could be obtained and by the high rate of wages, notwithstanding that State-aided immigration practically ceased in 1886. Towards the end of this period, expenditure, both State and private, was suddenly curtailed, and there was a scarcity of employment and consequent check to immigration. The year 1891 saw a cessation of immigration, and for the next decade the population progressed only by reason of the natural increase, as the excess of arrivals was but 223. The balance of migration was, moreover, affected by the rush of men to Western Australia after the discovery of gold in 1894, and by the departure of over 5,000 troops to the war in South Africa, from 1899 to 1901. Most of the latter have since returned, as well as many of those in the former category, and since the census of 1901 there has been a decided improvement.

MIGRATION.

The next table shows the arrivals in, and departures from, New South Wales by sea and by land during the last ten years, proper allowance being made for those unrecorded :—

Year.	Arrivals.			Departures.		
	By Sea.	By Land.	Total.	By Sea.	By Land.	Total.
1901	76,139	87,474	163,613	70,422	101,987	172,409
1902	81,191	79,459	160,650	68,766	87,524	156,290
1903	70,570	81,773	152,343	64,920	85,340	150,260
1904	72,978	83,284	156,262	64,877	87,217	152,094
1905	74,170	98,135	172,305	64,974	100,000	164,974
1906	79,465	113,870	193,335	70,186	117,038	187,224
1907	98,275	140,214	238,489	82,946	144,487	227,433
1908	100,856	143,569	244,425	94,452	150,224	244,676
1909	106,310	144,200	250,510	98,052	152,376	250,428
1910	111,525	163,691	275,216	102,205	169,856	272,061

There is a very large movement of population each year, but it can hardly be described as immigration or emigration in the popular sense in which those terms are used, and is largely due to the arrival and departure of tourists and business men. Of the total movement, 83 per cent. is with the other Australian States, and nearly one-half of the movement with countries outside Australia is with New Zealand.

The net gain of population from various countries during the last ten years is shown in the following table :—

Year.	Other Australian States.	New Zealand.	United Kingdom.	China, India.	Other British Possessions.	Foreign Countries.	Total.
1901	(—) 11,839	1,528	(—) 650	(—) 100	(—) 736	3,001	(—) 8,796
1902	1,647	99	(—) 1,213	(—) 81	(—) 435	4,343	4,360
1903	3,341	(—) 604	(—) 991	(—) 293	(—) 2,067	2,697	2,083
1904	2,362	1,273	(—) 1,114	(—) 164	(—) 889	2,700	4,168
1905	4,932	2,534	(—) 753	3	(—) 874	1,489	7,331
1906	4,867	760	920	(—) 461	(—) 775	800	6,111
1907	6,410	364	3,068	(—) 527	1,044	697	11,056
1908	(—) 4,473	(—) 872	3,234	(—) 548	1,849	559	(—) 251
1909	(—) 13,784	5,519	8,401	56	(—) 1,272	1,189	109
1910	(—) 11,100	5,452	8,835	(—) 204	(—) 904	1,076	3,155

(—) Signifies Loss.

The excess of arrivals from countries outside the Commonwealth during 1910 was 14,255, the largest excess during the last ten years. The excess of arrivals from New Zealand amounted to 5,452, and there was a gain of 690 persons from Canada.

The most remarkable feature shown by the above table is the change in the movement of population with the United Kingdom. In the first five years of the decennium there was a substantial loss of population to that country, but since 1906 there has been a steadily increasing excess of arrivals, amounting in 1910 to 8,835. This is due to the revival of the assisted immigration policy in 1905. Recognising the need of a much more rapid increase in population, in order to develop the vast resources and latent wealth of the country and to provide adequate defence, the State Government has made arrangements for the systematic advertisement throughout the United Kingdom of the advantages which this State offers to immigrants. The cost to suitable immigrants of the voyage to Australia is lessened by Government contributions, and specially reduced fares from the United Kingdom and other European countries. Residents of New South Wales may also arrange, by nomination, assisted passages for relatives and friends desirous of settling in this State.

Under an agreement with the States, the Federal Government now co-operates in the encouragement of immigration by undertaking the advertisement of the resources of the whole of Australia, and the selection of the immigrants is left to the representatives of the individual States, who also arrange the assisted passages.

The number of persons assisted to immigrate is shown hereunder :—

Year.	Total Assisted Immigrants.	Nominated by Relatives or Friends in State (included in preceding).
1906	590	114
1907	2,917	490
1908	3,048	1,237
1909	4,308	1,979
1910	5,058	2,936

SEX DISTRIBUTION.

The number of males in New South Wales has always exceeded the number of females. In the early days the disparity was very marked, but there has been a gradual tendency towards an equal sex distribution. The

preponderance of males is due to immigration, as the natural increase of females is the higher. The distribution of the sexes at each census since 1861 was as follows:—

Year.	Proportion of Males.	Proportion of Females.	Males per 100 Females.
	per cent.	per cent.	No.
1861	56·57	43·43	130
1871	54·67	45·33	121
1881	54·86	45·14	121
1891	54·14	45·86	118
1901	52·42	47·58	110
1911	52·10	47·90	109

From 1871 to 1881 the proportion of males remained constant at about 55 per cent. but immigration was checked towards the end of the next decade, and in 1891 the proportion of males had decreased slightly. During the following period there was very little immigration and in 1901 the difference between the sexes had become less than at any previous period, the proportion of males being 52·42 per cent. or 110 males to every 100 females. According to official estimates, the proportion of males remained fairly constant from 1901 to 1907, but since that year it has decreased; at the census of 1911, the percentages were—males 52·10, females 47·90, or 109 males to every 100 females.

AGE DISTRIBUTION.

The table below shows the number of persons, male and female, at each quinquennial period of age up to 85 years, as at the census of 1911 in comparison with the ages at the previous census. The figures are exclusive of aboriginals but the population of the Federal Capital territory is included in 1911:—

Ages.	1901.			1911.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 years..	80,308	78,553	158,861	102,088	98,958	201,046
5—9... ..	84,189	81,946	166,135	85,226	83,211	168,437
10—14... ..	81,582	80,097	161,679	79,235	78,087	157,322
15—19... ..	70,423	70,736	141,159	83,076	81,107	164,183
20—24... ..	62,448	64,818	127,266	87,418	82,909	170,327
25—29... ..	56,273	56,043	112,316	76,520	72,431	148,951
30—34... ..	52,596	46,697	99,293	64,303	59,940	124,243
35—39... ..	52,335	41,593	93,928	55,191	50,747	105,938
40—44... ..	44,930	33,436	78,366	50,983	43,499	94,482
45—49... ..	33,338	24,001	57,339	46,696	37,612	84,308
50—54... ..	25,615	19,327	44,942	39,393	29,989	69,382
55—59... ..	19,634	15,376	35,010	27,592	20,926	48,518
60—64... ..	16,733	12,192	28,925	20,050	16,365	36,415
65—69... ..	13,005	9,237	22,242	15,396	13,029	28,425
70—74... ..	7,772	5,202	12,974	10,629	8,593	19,222
75—79... ..	3,578	2,844	6,422	6,663	5,245	11,908
80—84... ..	1,883	1,574	3,457	2,722	2,227	4,949
85 and over ...	800	678	1,478	1,011	1,072	2,083
Unspecified ...	2,563	491	3,054	4,498	3,811	8,309
All Ages...	710,005	644,841	1,354,846	858,690	789,758	1,648,448

In 1911 the males were in excess of the females in every age-group shown above, though at the previous census there were more females at ages 15–19 years. Comparing the number of males and females at each year of age up to 21, there was very little difference between the sexes at the census of 1911;

but the males were more numerous, except at age 11 years, when there was a slight excess of females. The age constitution of the people has also materially altered since 1901. The results of the census of that year show that the largest number at any age period was from 5 to 9 years, and the number in the first group—under 5 years—was also exceeded by the total between 10–14 years. At the Census of 1911, the group under 5 years was numerically the greatest; the group 20 to 24 years ranks next, followed by 5–9 years; then 15–19 years. In the group 10–14 years, the actual number of both sexes has decreased during the decade.

The following statement shows the proportion per cent. of the total population in each age-group :—

Ages.	1901.			1911.		
	Males.	Females.	Total.	Males.	Females.	Total.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Under 5 years ...	11·31	12·18	11·73	11·95	12·59	12·26
5—9 ...	11·86	12·71	12·26	9·98	10·59	10·27
10—14 ...	11·49	12·42	11·93	9·28	9·93	9·59
15—19 ...	9·94	10·97	10·43	9·72	10·32	10·01
20—24 ...	8·89	10·07	9·45	10·23	10·55	10·38
25—29 ...	8·01	8·70	8·34	8·96	9·22	9·08
30—34 ...	7·45	7·25	7·36	7·53	7·62	7·58
35—39 ...	7·41	6·46	6·96	6·46	6·46	6·46
40—44 ...	6·35	5·19	5·80	5·97	5·53	5·76
45—49 ...	4·71	3·73	4·24	5·47	4·79	5·14
50—54 ...	3·62	3·00	3·33	4·61	3·82	4·23
55—59 ...	2·77	2·39	2·59	3·23	2·66	2·96
60—64 ...	2·36	1·89	2·14	2·35	2·08	2·22
65—69 ...	1·84	1·44	1·65	1·80	1·66	1·73
70—74 ...	1·10	·80	·96	1·24	1·09	1·17
75—79 ...	·51	·44	·47	·78	·67	·73
80—84 ...	·27	·25	·25	·32	·28	·30
85 and over ...	·11	11	·11	·12	·14	·13
All Ages ...	100·00	100·00	100·00	100·00	100·00	100·00

In this comparison, it will be seen that the percentage of the population contained in the groups from 5 to 19 years of both sexes was less in 1911 than at the previous census; and in the case of the males, there has also been a proportionate decrease in the groups 35 to 44 years, and from 60 to 69 years.

The following statement shows the population distributed in certain conventional groups; persons whose ages were not specified have not been included :—

Age-Group.	Number.			Proportion per cent.		
	Males.	Females.	Total.	Males.	Females.	Total
Under 5 years ...	102,088	98,958	201,046	11·95	12·59	12·26
5 to 14 ...	164,461	161,298	325,759	19·26	20·52	19·86
15 to 64 ...	551,222	495,525	1,046,747	64·53	63·05	63·82
65 and over ...	36,421	30,166	66,587	4·26	3·84	4·06
*Total ...	854,192	785,947	1,640,139	100·00	100·00	100·00
School age, 6 to 14 years ...	145,927	143,280	289,207	17·08	18·23	17·63
Adults, 21 and over... ..	367,219	358,312	725,531	42·99	45·59	44·24
Military age, 18 to 45 ...	368,458	.....	.....	43·14	.....	.....
Reproductive age, 15 to 44... ..	.....	390,633	.....	.....	49·70	.....

* Exclusive of 8,309 persons whose ages were not specified.

The adults represented 44·2 per cent. of the population and the children of statutory school age 17·6 per cent., as compared with 51·7 per cent. and 19·5 per cent. respectively in 1901.

THE METROPOLIS.

The Metropolis includes Sydney, the forty municipalities which surround it, and the Ku-ring-gai Shire, as well as the islands of Port Jackson, and embraces an area of 185 square miles. The boundaries may be described roughly as follows: on the east the sea-coast, and on the south, the waters of Botany Bay and George's River; on the west, Hurstville, Canterbury, Enfield, Strathfield, Concord, and Ryde; on the north, Ryde, Eastwood, Ku-ring-gai Shire, and Manly. The habitations within these limits are fairly continuous, with the exception of parts of Ryde and Canterbury. The following statement shows, at the Census of 1911, the population of each municipality of the metropolis, and of the Ku-ring-gai Shire:—

Municipality.	Males.	Females.	Total.	Municipality.	Males.	Females.	Total.
City of Sydney *	66,031	53,740	119,771	Leichhardt	11,828	12,426	24,254
Alexandria	5,260	4,863	10,123	Manly	4,716	5,749	10,465
Annandale	5,413	5,827	11,240	Marrickville	14,338	16,315	30,653
Ashfield	9,212	11,219	20,431	Mosman	5,836	7,407	13,243
Balmain	15,907	16,131	32,038	Newtown	12,887	13,611	26,498
Bexley	3,096	3,421	6,517	North Sydney	15,625	19,021	34,646
Botany	2,355	2,054	4,409	Paddington	11,494	12,823	24,317
Botany, North	3,083	2,753	5,836	Petersham	9,846	11,866	21,712
Burwood	4,001	5,379	9,380	Randwick	9,294	10,169	19,463
Canterbury	5,628	5,707	11,335	Redfern	12,422	12,005	24,427
Concord	2,009	2,067	4,076	Rockdale	6,739	7,356	14,095
Darlington	1,863	1,953	3,816	Ryde	2,562	2,719	5,281
Drummoyne	4,182	4,496	8,678	St. Peter's	4,220	4,190	8,410
Eastwood	521	447	968	Strathfield	1,709	2,337	4,046
Enfield	1,695	1,749	3,444	Vaucluse	768	904	1,672
Ersleville	3,583	3,716	7,299	Waterloo	5,206	4,866	10,072
Glebe	10,450	11,493	21,943	Waverley	9,107	10,724	19,831
Homebush	355	321	676	Willoughby	6,211	6,825	13,036
Hunter's Hill	2,605	2,408	5,013	Woollahra	7,415	9,574	16,989
Hurstville	3,187	3,346	6,533	Ku-ring-gai Shire	4,347	5,111	9,458
Kogarah	3,429	3,524	6,953				
Lane Cove	1,639	1,667	3,306	Total	312,074	324,279	636,353

* Includes shipping and islands of Port Jackson.

The population of the Metropolis is rather unevenly distributed. Two-fifths of the inhabitants are crowded into less than 7,000 acres, having a density from 30 to 90 per acre, while one-third occupy about 24,000 acres with an average density of 10, and the remainder are scattered over about 88,000 acres, which have a density of a little over 1 per acre.

A comparison of the population of the chief cities (including suburbs) of each State of the Commonwealth and of the Northern Territory, is shown below:—

Metropolis.	Males.	Females.	Total.
Sydney	305,728	323,775	629,503
Melbourne	277,956	311,015	588,971
Brisbane	67,628	71,852	139,480
Adelaide	90,578	99,068	189,646
Perth	53,231	53,561	106,792
Hobart	18,487	21,450	39,937
Darwin	678	280	958

These populations are exclusive of shipping, and for this reason the population of Sydney and suburbs differs from that shown in the previous table.

COUNTRY DISTRICTS.

Round the Metropolitan districts settlement at first followed the main roads, but with the establishment of the railway, the population settled within reach of the railway lines. In the coastal area, where the bulk of the people dwell, the development of the towns has more than kept pace with the general population. Thus, in the Valley of the Hunter, with its large agricultural and mining industries, population has made rapid strides. Newcastle and suburbs, for instance, increased from 7,810 in 1861, to 54,991 in 1901, the population in 1911 being 55,380. The Illawarra district, rich in coal and pasture, and the dairy, maize, and sugar-growing districts of the Clarence and Richmond Rivers, have also increased largely in their urban population.

The next statement shows, at the Census of 1911, the populations of the country municipalities of New South Wales:—

Municipality.	Males.	Females.	Total.	Municipality.	Males.	Females.	Total.
Aberdeen	379	355	734	Inverell	2,247	2,302	4,549
Albury	3,052	3,257	6,309	Jamberoo	575	525	1,100
Armidale	2,290	2,448	4,738	Jerilderie	385	333	718
Auburn	2,757	2,802	5,559	Junee	1,296	1,235	2,531
Ballina	1,083	1,041	2,124	Katoomba	1,955	2,968	4,923
Balranald	373	356	729	Kempsey	1,442	1,504	2,946
Bankstown	1,060	979	2,039	Kiama	793	808	1,601
Barraba	554	571	1,125	Lismore	3,324	3,557	7,381
Bathurst	4,194	4,381	8,575	Lithgow	4,302	3,894	8,196
Bega	912	1,057	1,969	Liverpool	2,206	1,732	3,938
Berry	804	817	1,621	Maclean	781	801	1,582
Bingara	613	600	1,213	Maitland, East ..	1,474	1,629	3,103
Blayney	710	725	1,435	Maitland, West ..	3,998	4,212	8,210
Bombala	404	423	827	Manilla	706	684	1,390
Bourke	846	747	1,593	Mittagong	441	535	976
Bowral	735	1,016	1,751	Moama	427	414	841
Braidwood	577	656	1,233	Molong	684	687	1,371
Brewarrina	412	386	798	Moree	1,545	1,386	2,931
Broken Hill	16,921	14,051	30,972	Morpeth	518	546	1,064
Broughton Vale ..	131	105	236	Moruya	475	470	945
Burrowa	461	480	891	Moss Vale	668	806	1,474
Cahramatta and Canley Vale.	617	564	1,181	Mudgee	1,381	1,561	2,942
Camden	872	925	1,797	Mulgoa	219	232	451
Campbelltown	868	957	1,825	Mullumbimby	496	455	951
Carcoar	245	290	535	Murrumburrah	1,095	1,041	2,136
Casino	1,734	1,686	3,420	Murrurundi	862	830	1,692
Castlereagh	285	235	520	Murwillumbah	1,144	1,062	2,206
Cobar	2,632	1,798	4,430	Muswellbrook	885	976	1,861
Condobolin	615	615	1,230	Narrabri	1,307	1,207	2,514
Cooma	1,034	1,029	2,063	Narrabri, West ..	434	372	806
Coonamble	1,182	1,080	2,262	Narrandera	1,211	1,163	2,374
Cootamundra	1,517	1,450	2,967	Narramine	641	628	1,269
Coraki	623	515	1,138	Newcastle and Suburbs—			
Corowa	1,049	1,014	2,063	Newcastle	6,674	5,713	12,387
Cowra	1,692	1,579	3,271	Adamstown	1,347	1,313	2,660
Cudal	304	270	574	Carrington	1,366	1,319	2,685
Cudgegong	1,431	1,247	2,678	Hamilton	3,904	4,004	7,908
Deniliquin	1,246	1,248	2,494	Lambton	1,376	1,420	2,796
Dubbo	2,210	2,242	4,452	Lambton, New	933	894	1,827
Dundas	576	560	1,136	Merewether	2,082	2,069	4,151
Dungog	820	703	1,523	Plattsburg	1,353	1,308	2,661
Ermington and Rydalmere.	909	807	1,716	Stockton	964	1,142	2,106
Forbes	2,192	2,244	4,436	Wallsend	1,693	1,653	3,346
Gerrington	417	377	794	Waratah	2,138	2,281	4,419
Glen Innes	2,013	2,076	4,089	Wickham	4,260	4,174	8,434
Goulburn	4,831	5,192	10,023	Total, Newcastle & Suburbs.	28,090	27,290	55,380
Grafton	2,288	2,393	4,681	Nowra	911	973	1,884
Grafton, South	610	597	1,207	Nyngan	636	564	1,200
Granville	3,547	3,684	7,231	Orange	2,040	2,180	4,220
Grenfell	599	546	1,145	Orange, East	1,227	1,274	2,501
Greta	468	390	858	Parkes	1,437	1,498	2,935
Guilgong	876	860	1,736	Parramatta	6,500	5,965	12,465
Gundagai	592	589	1,181	Peak Hill	739	623	1,362
Gunnedah	1,513	1,492	3,005	Penrith	1,788	1,894	3,682
Hay	1,165	1,296	2,461	Pictou	476	478	954
Hillgrove	796	785	1,581	Port Macquarie ..	571	548	1,119
Hillston	334	310	644	Prospect and Sherwood	2,026	1,906	3,932
Illawarra, Central ..	2,766	2,234	5,000	Queanbeyan	624	649	1,273
Illawarra, North ..	2,765	2,392	5,157	Quirindi	1,101	1,139	2,240
Ingleburn	167	212	379	Raymond Terrace ..	414	497	911

Municipality.	Males.	Females.	Total.	Municipality.	Males.	Females.	Total.
Richmond	1,015	842	1,857	Walcha	664	670	1,334
Rookwood	3,040	2,378	5,418	Wallendbeen	578	441	1,019
Scone	595	561	1,156	Warraldra	383	399	782
Shellharbour	818	724	1,542	Warren	581	561	1,142
Shoalhaven, South	382	339	721	Wellington	1,922	2,036	3,958
Singleton	1,461	1,535	2,996	Wentworth	237	271	558
Smithfield and Fairfield	1,142	1,084	2,226	Wilcannia	323	342	670
St. Mary's	889	905	1,794	Windsor	1,792	1,674	3,466
Tamworth	3,592	3,558	7,145	Wingham	531	439	970
Taree	647	600	1,247	Wollongong	2,250	2,414	4,673
Temora	1,459	1,325	2,784	Wrightville	872	696	1,568
Tenterfield	1,323	1,404	2,727	Wyalong	547	495	1,042
Tumut	762	755	1,517	Yass	1,027	1,109	2,136
Ulladulla	773	729	1,502	Young	1,499	1,640	3,139
Ullmarra	958	874	1,832				
Uralla	497	522	1,019				
Wagga Wagga	3,238	3,181	6,419				
				*Total, Country Municipalities.	214,531	208,277	422,808

* Includes shipping.

None of these municipalities is densely populated, the most closely inhabited having only 11 persons per acre. The largest is Cudgegong, with an area of 122,880 acres, and the smallest Taree, with 294 acres.

The population of the State contained in the metropolitan area, the country municipalities, the Shires, and the unincorporated part of the Western Division as at the Census of 1911, is shown below; also the density in each division as represented by the average population per square mile. In this table the shipping figures have been excluded from the population of each division, and are shown separately:—

Division.	Area.	Population.			Population per Square Mile.
		Males.	Females.	Total.	
	sq. miles.				
Sydney	5	59,685	53,236	112,921	22,584.2
Suburbs	180	246,043	270,539	516,582	2,869.9
Metropolis	185	305,728	323,775	629,503	3,402.7
*Country Municipalities	2,848	213,492	208,222	421,714	148.1
*Shires	181,177	319,412	250,093	569,505	3.1
Western Division (Part unincorporated).	125,257	11,533	6,323	17,856	.1
Lord Howe Island	5	56	49	105	21.0
Federal Capital Territory	900	992	722	1,714	1.9
Shipping .. ..	.....	7,477	574	8,051	.....
.Total, New South Wales	310,372	858,690	789,758	1,648,448	5.3

* The Ku-ring-gai Shire, area 36 sq. miles, population 9,458, is included with Suburbs of Metropolis.

The population of the Metropolis, including shipping, represents 38.6 per cent. of the total population; 25.6 per cent. reside in the country municipalities, and 34.5 per cent. in the other incorporated areas.

PERSONS OF NON-EUROPEAN RACES.

Legislative measures to restrict the influx of coloured aliens were passed in New South Wales in the early days of self-government. Public feeling was first aroused by the entry of large numbers of Chinese, and the enactments imposed limitations only on the immigration of this race. Subsequently, however, the restrictive powers were extended to regulate the influx of all coloured aliens.

At the establishment of the Commonwealth the control of the conditions relating to immigration passed into the hands of the Federal Parliament. The Federal legislation relating to immigration restriction does not aim at the exclusion of the people of any particular race or colour, but of undesirable immigrants generally. Under its provisions no person is allowed to land who fails to pass a dictation test in any European language required by the Customs' officers. This test has not been applied to any desirable immigrant of European nationality. Paupers, criminals, lunatics, and other persons likely to be source of danger to public health or morals are excluded.

Provision is made also to prevent the immigration of labourers under contract to perform manual labour, if their arrival has any connection with an industrial dispute, or if the contract rate of wages is less than that current in the district where the work is to be performed.

During the eight years the Act has been in force, 1,401 persons have been refused admittance.

In 1901 the Federal Government also passed an Act to prohibit the introduction of native labourers from the Pacific Islands. These labourers were employed in the sugar plantations, for the greater part in Queensland, but also in smaller numbers in the north coastal districts of New South Wales. Under this Act all agreements with the islanders were terminated at the end of the year 1906, and arrangements were made by the Government for their deportation.

At the Census of 1911, the number of persons in this State, including the Federal Capital territory, of non-European race other than aboriginal, was 13,147, which represents a very small proportion—8 per 1,000—of the total population.

Race.	Full-blood.			Half-caste.			Total.
	Males.	Females.	Total.	Males.	Females.	Total.	
Asiatic—							
Chinese	7,942	284	8,226	561	571	1,132	9,358
Hindus	1,121	63	1,184	72	64	136	1,320
Japanese	119	7	126	19	13	32	158
Syrians	655	540	1,195	20	25	45	1,240
Malays	28	1	29	9	2	11	40
Filipinos	7	1	8	6	3	9	17
Javanese	7	2	9	1	...	1	10
Cingalese	90	13	103	13	5	18	121
Afghans and Baluchis ...	50	2	52	1	1	2	54
Arabs	16	...	16	3	1	4	20
Jews... ..	11	10	21	...	...	...	21
Turks	9	6	15	...	...	...	15
Other Asiatic	6	...	6	...	...	...	6
African—							
Negroes	134	23	157	95	71	166	323
Egyptians	5	4	9	...	...	...	9
Other African	3	...	3	...	...	...	3
American—							
Indians	5	...	5	5	...	5	10
Other American	5	...	5	2	...	2	7
Polynesian—							
Polynesian (so described)...	250	18	268	22	19	41	309
Papuans ... ..	...	1	1	...	1	1	2
Maoris	37	18	55	12	12	24	79
Fijians	14	5	19	1	3	4	23
Indefinite ... ..	...	2	2	...	...	...	2
Total	10,514	1,000	11,514	842	791	1,633	13,147

The most numerous of these races are the Chinese, who constitute 70 per cent. of the coloured aliens; the Hindus and Syrians follow in numerical order.

The Chinese were first attracted to the State by the gold discoveries, and at the Census of 1861, they numbered 12,988, exclusive of half-castes, who were not enumerated until 1891. From 1861 to 1871, the number declined, probably on account of the diminution in the gold yield, and the discovery of richer gold-fields in the neighbouring States; but in 1878, there was a steady increase in the arrivals from China, which lasted until about 1888, when an effective check was given to the immigration of this race by the passage of the Chinese Restriction Act of that year.

The following statement shows the number of Chinese in Australia, including half-castes, as recorded at each census since 1891 :—

State.	1891.	1901.	1911.
New South Wales (including Federal Capital Territory) ...	14,156	11,263	9,358
Victoria	9,377	6,956	5,601
Queensland	8,574	9,313	6,714
South Australia (including Northern Territory)	3,997	3,455*	1,698
Western Australia... ..	917	1,569	1,872
Tasmania	1,056	609	529
Total, Commonwealth	38,077	33,165	25,772

These figures show a decrease in each State, except Western Australia.

ABORIGINES.

The aborigines of Australia form a distinct race, and it may be presumed that the whole of them throughout the continent sprang from the same stock, although it is remarkable that their languages differ so greatly that tribes in close proximity are quite unable to understand each other, and almost every large community of natives has its own peculiar dialect. It is difficult to form a correct estimate of the numbers of the aborigines; but while there is reason to believe that formerly they were very numerous, there is evidence that of late years they have been decreasing greatly.

Governor Phillip estimated the aboriginal population, about the year 1800, at one million, of whom about 3,000 lived between Broken Bay and Botany Bay. Although the latter estimate (3,000) was very likely correct, the quotation for the whole territory, being based on the supposition that the natural resources of the continent were as great as those of the land under his notice, was no doubt exaggerated.

The aborigines were never properly counted until the Census of 1891, when they were classed as full-blood and half-caste. In 1901 only the full-blood and nomadic half-caste were counted. According to the Commonwealth Constitution Act, in reckoning the quota to determine the number of members to which the State is entitled in the House of Representatives, aboriginal natives of Australia are not counted. It has been decided that only full-bloods are aborigines within the meaning of the Act, and, consequently, in 1901 and 1911 half-castes were included in the general population. At the Census of 1911 no attempt was made to enumerate the aboriginals living in a purely wild state, and the number shown in the following table represents only those who were in the employ of whites, or were living in a civilised or semi-civilised condition in the vicinity of settlements of whites, at the date of census. In 1861 aborigines were not enumerated at all; in 1871 and 1881 the wandering tribes were passed over, and only those who were civilised or in contact with Europeans were enumerated and included in the

general population. The numbers of full-blooded aborigines in New South Wales, enumerated at each census, are shown below; the figures for 1911 include the Federal Capital Territory :—

Census.	Males.	Females.	Total.
1871	709	274	983
1881	938	705	1,643
1891	4,559	3,721	8,280
1901	2,451	1,836	4,287
1911	1,157	865	2,022

In 1891 the number of half-castes was 1,663 males and 1,520 females. In 1901 the number of both full-bloods and half-castes was 4,093 males and 3,341 females, and of these the number of nomads was 509—259 males and 250 females. In addition to the 2,022 full-bloods at the Census of 1911 there were enumerated 4,520 half-castes—2,339 males, and 2,181 females.

The Board for the Protection of Aborigines has been constituted to safeguard the interests of the aboriginal population in New South Wales, and a number of reserves have been set apart throughout the State, where they are provided with dwellings and means of livelihood. The residents on these stations are encouraged, as far as practicable, by the supply of tools and seed, to farm the land to its best advantage, and the education of the children is conducted by duly qualified instructors. Under an Act passed in 1909 the control of the reserves is vested in the Board, and their powers of administration considerably amplified with a view of ameliorating the conditions of the race.

In 1910 the number of aborigines under the control of the Board in New South Wales was 6,957, of whom 1,872 were full-bloods, and 5,085 half-castes. In comparison with the return of the previous year, there was a decrease of 251 full-bloods, and of 162 half-castes.

A comparison of the number of full-blooded aborigines in each State and Territory of the Commonwealth of Australia at the Census of 1911 is afforded in the following table :—

States and Territories.	Males.	Females.	Total.
States—			
New South Wales	1,152	860	2,012
Victoria	103	93	196
Queensland	5,145	3,542	8,687
South Australia	802	637	1,439
Western Australia	3,433	2,936	6,369
Tasmania	2	1	3
Territories—			
Northern Territory	743	480	1,223
Federal Capital Territory	5	5	10
Total, Commonwealth	11,385	8,554	19,939

NATURALISATION.

Under the Commonwealth Naturalisation Act, which came into operation on the 1st January, 1904, any person is deemed to be naturalised who had, before the passing of the Act, obtained a certificate of naturalisation in any State. An applicant must make a statutory declaration giving his name, age, birth-place, occupation, residence, the length of his residence

in Australia, and stating that he intends to settle in the Commonwealth; also a certificate signed by some competent person that the applicant is of good repute.

It is also enacted that any person resident in the Commonwealth, other than British subjects and aboriginal natives of Asia, Africa, or the islands of the Pacific, excepting New Zealand, who intends to settle in the Commonwealth, and who has resided in Australia continuously for two years immediately preceding the application, or who has obtained a certificate of naturalisation in the United Kingdom, may apply to be naturalised.

The Governor-General may in his discretion grant or withhold a certificate, and the certificate is issued when the applicant has taken the necessary oath of allegiance.

Any person to whom a certificate of naturalisation is granted is in the same position as a natural-born British subject, provided that where, by the provisions of any Commonwealth or State Constitution or Act, a distinction is made between the rights of natural-born British subjects and naturalised persons, the rights conferred by the Commonwealth Act are only those to which persons naturalised would be entitled.

An alien woman who marries a British subject is deemed to be thereby naturalised. Any infant, not being a natural-born British subject, whose father has been naturalised, or whose mother is married to a natural-born British subject or to a naturalised person, and who has at any time resided in Australia with such father or mother, is also deemed to be naturalised.

At the census of 1901 the number of naturalised foreigners was 3,619, viz., 3,265 males and 354 females. It is probable, however, that these numbers are under-stated. Germans have availed themselves most largely of the privileges of naturalisation, having taken out nearly one-half of the certificates granted.

The following table shows the nationalities of the persons naturalised in New South Wales during each of the last nine years:—

Nationality.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	Total to end of 1910.
German ...	108	109	412	170	154	163	140	217	213	5,505
Scandinavian ...	110	89	433	113	128	105	93	128	170	2,676
Russian ...	37	30	148	11	18	10	40	62	50	735
Italian ...	31	34	116	58	44	51	38	66	53	750
Other European ...	53	66	239	156	83	85	77	131	152	1,958
United States ...	6	3	26	10	20	16	8	24	24	262
Chinese ...	...	...	...	...	...	...	...	...	...	908
Others ...	41	69	5	26	28	...	...	16	3	579
Total ...	386	400	1,379	544	475	458	396	644	665	13,373

VITAL STATISTICS.

NOTE.—Since the compilation of this chapter the results of the Census of 1911 show that the estimates of population upon which the rates for the Australian States are based require slight amendment. Full particulars are not yet available, but the rates will be thoroughly revised in a subsequent edition of this Year Book.

MARRIAGES.

The number of marriages celebrated in New South Wales during 1910 was 14,294, corresponding to a rate of 8·58 per 1,000 of the population. The number is the highest on record, and the rate is, with the exception of 1882 and 1883, when it was 8·7 and 8·8 respectively, the highest since 1865.

The following table shows the average annual number of marriages and the rates per 1,000 of the population during each quinquennium of the last forty-one years :—

Period.	Average Number of Marriages.	Rate per 1,000 of Population.	Period.	Average Number of Marriages.	Rate per 1,000 of Population.
1870-74	4,091	7·77	1895-99	8,700	6·74
1875-79	4,987	7·88	1900-04	10,240	7·33
1880-84	6,738	8·39	1905-09	12,080	7·78
1885-89	7,679	7·67	1910	14,294	8·58
1890-94	7,954	6·80			

Until the year 1891 the increase in the number of marriages celebrated was remarkably steady, very few checks being experienced, but in 1892 there was a sudden decline, which continued until 1895, when the figures again took an upward movement, but the proportion married per 1,000 of the population did not reach the 1891 level until 1900. In 1901 the rate was the highest since 1886, but in the next two years it again declined largely. Since 1903, however, there has been a constant improvement. The rate of improvement during the last five years discloses an advance of about 10 per cent. in the marriage rate.

A more exact method of stating the marriage rate is to compare the marriages with the number of marriageable males and females in the community, since the marriage rate is mainly a function of age. As stated elsewhere, however, it has not been considered advisable to make any estimates of the number living at various ages until the results of the 1911 Census have been obtained. The marriage rate is an intimate reflex of the comparative prosperity of a country; also, a high marriage rate indicates a considerable proportion of marriageable persons in the community. From either point of view the augury in respect of New South Wales must be regarded as highly favourable.

The following statement shows the marriage rate per 1,000 of the population in each State of the Commonwealth of Australia, New Zealand, and in a number of European countries during the last six years:—

State.	1905-1909.	1910.	Country.	1904-1908.	1909.
South Australia ...	7.62	8.73	Servia ...	10.3	9.4
New South Wales ...	7.80	8.58	Roumania ...	9.1	9.2
New Zealand ...	8.57	8.29	Hungary ...	9.0	8.5
Queensland ...	7.12	8.05	Prussia ...	8.1	7.8
Tasmania ...	7.86	7.97	France ...	7.8	7.8
Victoria ...	7.38	7.83	Italy ...	7.8	7.7
Western Australia ...	7.90	7.46	England and Wales ...	7.7	7.3
			Denmark ...	7.4	7.3
			Netherlands ...	7.4	7.0
			Spain ...	7.2	6.5
			Scotland ...	6.8	6.2
			Sweden ...	6.0	6.0
			Norway ...	6.0	6.0
			Ireland ...	5.2	5.2

South Australia has the highest marriage rate in Australasia, followed by New South Wales, New Zealand, and Queensland, in the order mentioned, with Western Australia last on the list. In 1910 in most of the States the rates showed a decided improvement.

A comparison of the marriage rates of various countries may be misleading, on account of the different conditions of life prevailing, and the varying number of marriageable persons therein. The figures show that in Europe, as in New South Wales, the marriage rate has been increasing.

MARK SIGNATURES IN MARRIAGE REGISTER.

The number of persons who signed the marriage register with marks in the year 1910 was 209, equal to 7.31 per 1,000 persons married. The number of mark signatures has steadily declined for many years past. In 1870 the proportion of signatures made with marks was as high as 18.23 per cent. of the whole, while in 1910 the percentage had fallen to .7, the decrease in illiteracy being, therefore, highly satisfactory:—

Year.	Males signing with marks, per 1,000.	Females signing with marks, per 1,000.	Year.	Males signing with marks, per 1,000.	Females signing with marks, per 1,000.
1870-74	129	170	1895-99	19	17
1875-79	86	105	1900-04	12	12
1880-84	54	68	1905-09	9	8
1885-89	37	40	1910	7	7
1890-94	27	25			

MARRIAGES, IN RELIGIONS.

Of every hundred marriages celebrated in New South Wales, about ninety-eight are solemnised by the clergy. The actual figures for 1910 show that during that year 14,008 marriages were solemnised by Ministers of Religion and 286 by District Registrars, giving the proportions of 98.0 per cent. and 2.0 per cent. respectively of the total number, 14,294.

The Church of England celebrates the largest number of marriages, the Roman Catholic Church coming next, followed by the Presbyterian and

Methodist Churches. "Matrimonial Agencies" which appear on the following list are no longer in existence, as the Registrar-General, in the year 1907, refused to renew the licenses of certain clergymen who performed marriages at these matrimonial agencies.

The following table shows the number and proportion per cent. of marriages registered by the several denominations during 1910, in comparison with the preceding five years:—

Denomination.	Marriages, 1905-1909.	Proportion per cent.	Marriages, 1910.	Proportion per cent.
Church of England ...	23,128	38·29	5,884	41·16
Roman Catholic ...	10,831	17·93	2,619	18·32
Presbyterian ...	7,982	13·22	1,988	13·91
Methodist ...	7,503	12·42	1,714	11·99
Congregationalist...	5,673	9·39	1,011	7·07
Baptist ...	1,076	1·78	225	1·58
Hebrew ...	131	0·22	35	0·25
All other Sects ...	1,425	2·36	532	3·72
Matrimonial Agencies ...	1,406	2·33	...	...
District Registrars ...	1,245	2·06	286	2·00
Total Marriages ...	60,400	100·00	14,294	100·00

In 1910 the denominations which showed an increased rate as compared with the previous five years were Church of England, Roman Catholic, Presbyterian, and Hebrew.

CONDITION BEFORE MARRIAGE.

During the year 1910, of the males married, 13,427 were bachelors, 760 were widowers, and 107 were divorced. Of the females, 13,438 were spinsters, 704 were widows, and 152 were divorced. The proportion of males re-married was 6·1 per cent., and of females 6·0 per cent.

The following table shows at quinquennial intervals since 1881 the proportion of first marriages and re-marriages per 10,000 males and females respectively:—

Period.	Bachelors.	Widowers and Divorced Men.	Spinsters.	Widows and Divorced Women.
1881	9,087	913	9,044	956
1886	9,137	863	9,156	844
1891	9,229	771	9,216	784
1896	9,184	816	9,172	828
1901	9,270	730	9,268	732
1906	9,262	738	9,352	648
1907	9,341	659	9,387	613
1908	9,335	665	9,436	564
1909	9,339	661	9,413	587
1910	9,393	607	9,401	599

AGE AT MARRIAGE.

Of the 14,294 couples married in 1910, the ages of 14,289 bridegrooms and of 14,290 brides are known. An examination of the figures shows that in 73·6 per cent. of the marriages the husband was older than the wife; in 9·5 per cent. the ages of the contracting parties were the same; while in the remaining 16·9 per cent. of the unions the bride was older than the bridegroom.

The results of a tabulation of the respective ages of bridegrooms and brides in 1910 are shown in the following table:—

Ages of Bridegrooms.	Ages of Brides.												
	Under 18	18	19	20	21 — 24	25 — 29	30 — 34	35 — 39	40 — 44	45 — 49	50 and over.	Not stated	Total.
Under 18 years ..	11	1	2	..	..	..	..	..	..	..	..	..	14
18 years	29	12	10	5	10	1	..	..	..	..	..	..	67
19 „	51	51	46	22	33	2	..	..	..	..	..	..	205
20 „	56	71	76	68	112	14	3	..	..	..	..	..	400
21—24 „	274	375	495	493	2,126	534	55	11	1	2	..	..	4,366
25—29 „	121	175	269	304	2,013	1,526	269	57	13	6	..	..	4,753
30—34 „	24	49	62	83	648	759	401	110	20	8	..	..	2,164
35—39 „	9	16	15	21	211	339	232	145	43	13	1	..	1,045
40—44 „	2	6	7	8	64	96	130	108	73	22	9	..	525
45—49 „	3	3	2	2	21	52	58	78	51	33	17	..	320
50 and over ..	3	3	1	..	15	26	43	67	80	75	117	..	430
Not stated ..	..	..	1	..	..	..	..	..	..	..	..	4	5
Total	583	762	986	1,006	5,253	3,349	1,191	576	281	159	144	4	14,294

The following statement shows the average age at marriage of both bridegrooms and brides for each of the last ten years. The difference between the ages at marriage of males and females is about four years, the males being the older.

Year.	Average age of Bridegrooms.	Average age of Brides.	Year.	Average age of Bridegrooms.	Average age of Brides.
	Years.	Years.		Years.	Years.
1901	29·08	24·91	1906	29·23	25·08
1902	29·25	25·03	1907	29·20	25·20
1903	29·20	25·04	1908	29·02	25·19
1904	29·00	24·93	1909	29·11	25·30
1905	29·13	24·96	1910	29·02	25·31

The average age at marriage, both of bridegrooms and brides, has remained practically constant during the last ten years, although there is now a slight tendency to a lower average on the part of bridegrooms.

The above figures relate to all persons marrying during the year, and include those re-marrying. The average ages of those marrying for the first time during 1910 were, of bachelors 28·2 years, and of spinsters 24·6 years, being about ten months lower in the case of bridegrooms and eight months lower in the case of brides.

MARRIAGE OF MINORS.

The number of persons under 21 years of age married during 1910 was 4,023, or 14·1 per cent. of the total. The proportion of bridegrooms who were minors was 4·8 per cent., and of brides 23·3 per cent. The proportion

of bridegroom minors was considerably above the average, but in the case of the brides the proportion was below the average. The figures for the last ten years are appended:—

Year.	Minors.		Percentage of—	
	Bride-grooms.	Brides.	Bride-grooms.	Brides.
1901	351	2,546	3.33	24.16
1902	309	2,372	2.95	22.62
1903	320	2,249	3.28	23.05
1904	395	2,506	3.79	24.05
1905	434	2,654	3.96	24.19
1906	497	2,837	4.30	24.56
1907	577	2,949	4.73	24.19
1908	520	2,942	4.11	23.27
1909	581	2,996	4.45	22.96
1910	686	3,337	4.80	23.35

An examination of the records for the last thirty years shows that the proportion of minors marrying is increasing among bridegrooms, and has a tendency to decrease amongst brides.

BIRTHS.

The number of births during 1910 was 45,533, equal to a rate of 27.32 per 1,000 of the total population. The actual number of births was the highest ever recorded in this State, and the rate was slightly above the average for the preceding ten years. The birth-rate, which fell away sharply after 1888, declined considerably down to 1903, and is now practically stationary, being 27 per cent. below the figure for 1888. The following table shows the average annual number of births and birth-rate per 1,000 of the total population in quinquennial periods since 1870:—

Year.	Births.	Birth-rate per 1,000 of Population.	Year.	Births.	Birth-rate per 1,000 of Population.
1870-74	20,733	39.36	1895-99	37,042	28.68
1875-79	24,388	38.51	1900-04	37,498	26.85
1880-84	30,417	37.89	1905-9	41,788	26.92
1885-89	36,877	36.85	1910	45,533	27.32
1890-94	39,550	33.80			

These rates are based on the total population—that is, not taking into consideration either the age or sex distribution. It is unsatisfactory, for several reasons, so to measure the birth-rate. A preferable method for purposes of strict analysis, is to calculate the number of legitimate births per 1,000 married women of reproductive ages (from 15 to 45). Unfortunately, however, the number of persons living in various age-groups is ascertained only at the census. In intervening years it is necessary to make an estimate, which becomes less reliable as the period from the census increases. Estimates of sections of the population depend on a double assumption, viz., that the proportion of that section to the total population, and also the proportion at each age, remain the same as at the census. As the fluctuations in each case are unknown, such estimates become increasingly unreliable year by year. The results of the last census of 1911 are not yet available, and it has, therefore, been considered inadvisable to make any estimate for the past

year, but up to the time of the previous census, the rates based on the number of married women show similar results to that in the above table, except that proportionately the decline since 1888 is greater than shown there.

The birth-rate per 1,000 of the population of each State of the Commonwealth, of New Zealand, and of a number of European countries, during the last six years, is given in the following table:—

State.	1905-9.	1910.	Country.	1904-8.	1909.
Tasmania	29·87	29·87	Roumania	39·9	41·7
New South Wales	26·92	27·32	Hungary	36·2	37·0
Queensland	26·62	27·31	Servia	39·0	36·5
Western Australia	29·20	26·85	Spain	33·6	32·6
New Zealand	27·27	26·17	Italy	32·6	32·4
South Australia	24·20	25·11	Prussia	33·5	31·8
Victoria	24·85	24·04	Netherlands	30·4	29·1
			Denmark	28·5	28·0
			Scotland	27·8	26·4
			Norway	27·0	26·1
			England and Wales	27·0	25·6
			Sweden	25·7	25·6
			Ireland	23·4	23·5
			France	20·4	19·6

BIRTH-RATES—METROPOLIS AND COUNTRY.

Dividing the State into metropolitan and country districts, there were during 1910, in the former, 16,204 births, and in the latter 29,329, corresponding to rates of 26·41 and 27·83 per 1,000 of population respectively. The country has shown a higher rate than the metropolis since 1893, but prior to that year the metropolitan rate was the higher.

Year.	Number of Births.			Births per 1,000 of Population.		
	Metropolis.	Country.	New South Wales.	Metropolis.	Country.	New South Wales.
1880-84	49,058	103,026	152,084	40·16	36·90	37·89
1885-89	65,866	118,517	184,383	41·50	34·69	36·85
1890-94	68,754	128,998	197,752	34·11	33·63	33·80
1895-99	61,224	123,986	185,210	26·73	29·75	28·68
1900-04	63,694	123,795	187,489	25·20	27·78	26·85
1905-09	14,482	27,306	41,788	25·62	27·67	26·92
1910	16,204	29,329	45,533	26·41	27·83	27·32

The highest rate exhibited for the whole of New South Wales during the last thirty years was 38·65 in 1880. The maximum rate for the metropolis was reached in 1884, when the births were 43·88 per 1,000 of the population; and in the country districts the greatest number of births in proportion to the population occurred in 1880, when the rate was 38·73 per 1,000.

The rate has been declining in both districts, but not to the same extent in the country as in the metropolis. In the metropolis there was a heavy fall from 1890 to 1894, and again from 1895 to 1899; in the country there was a corresponding fall, but it began earlier than in the metropolis. In both metropolis and country the rates have fluctuated very slightly during the last 5 years; the country rate, on the average, has been 2 per 1,000 of the population better than that of the city.

SEXES OF CHILDREN.

Of the 45,533 children born during the year (exclusive of children still-born), 23,443 were males and 22,090 were females, the proportion being 106 males to 100 females. In no year, so far as observation extends, have the female births exceeded in number those of males, although the difference has sometimes been very small. The preponderance of births of male children in New South Wales during a number of years will be seen from the table given below:—

Year.	Males.	Females.	Persons.	Year.	Males.	Females.	Persons.
1870-74	10,577	10,156	20,733	1895-99	18,979	18,063	37,042
1875-79	12,477	11,911	24,388	1900-04	19,134	18,364	37,498
1880-84	15,567	14,850	30,417	1905-09	21,406	20,382	41,788
1885-89	18,898	17,979	36,877	1910	23,443	22,090	45,533
1890-94	20,324	19,226	39,550				

The excess of males over females born during the past forty-one years has ranged from 2 per cent. in 1875, 1876, and 1901, to 8 per cent. in 1889, the average being 5.0 per cent.

The following table shows the number of males born to every 100 females, both in legitimate and illegitimate births during the last forty-one years:—

Year.	Legitimate Births.	Illegitimate Births.	All Births.	Year.	Legitimate Births.	Illegitimate Births.	All Births.
1870-74	104.3	101.0	104.1	1895-99	105.0	105.4	105.1
1875-79	104.6	108.8	104.8	1900-04	104.3	102.8	104.2
1880-84	104.9	103.9	104.8	1905-09	105.0	104.9	105.0
1885-89	105.4	98.8	105.1	1910	106.3	103.8	106.1
1890-94	105.7	105.4	105.7				

ILLEGITIMACY.

The number of illegitimate births in 1910 was 2,900, equal to 6.88 per cent. of the total births. A statement of the illegitimate births in New South Wales since 1880, distinguishing metropolitan and country districts, is given below:—

Year.	Number of Illegitimate Births.			Ratio per cent. to Total Births.		
	Metropolis.	Country Districts.	New South Wales.	Metropolis.	Country Districts.	New South Wales.
1880	561	665	1,226	6.72	3.36	4.35
1890	1,056	995	2,051	7.81	3.91	5.26
1900	1,222	1,383	2,605	10.08	5.53	7.01
1905	1,530	1,382	2,912	11.11	5.37	7.37
1906	1,457	1,425	2,882	10.42	5.28	7.04
1907	1,546	1,423	2,969	10.79	5.11	7.04
1908	1,545	1,387	2,932	10.40	5.01	6.89
1909	1,549	1,330	2,879	10.02	4.70	6.58
1910	1,530	1,370	2,900	9.44	4.67	6.88

Doubtless the smaller proportion of illegitimate births noticeable in the country districts is caused by natural gravitation of mothers to the metropolis, due to the presence of maternity hospitals in Sydney.

The method of stating the illegitimate as a proportion of the total births is erroneous, because the illegitimate births have no necessary relation to the legitimate births, and because they are compared with a standard which has been declining for several years, and which is, consequently, itself variable; the proportion of illegitimate to legitimate births has increased because the number of legitimate births relatively to the population has decreased largely.

It would be preferable, because exact, to compare illegitimate births with the number of unmarried females of the reproductive ages. As stated previously, however, it is not advisable to do this at the present time, but it is hoped the means of comparison will be available after the particulars obtained at the Census of 1911 have been tabulated. In place of the rate based on the number of unmarried females, that based on the whole population is given in the following statement at quinquennial intervals since 1881:—

Year.	Illegitimate Births per 1,000 of Population.	Year.	Illegitimate Births per 1,000 of Population.
1881	1·65	1906	1·90
1886	1·74	1907	1·91
1891	1·85	1908	1·85
1896	1·92	1909	1·77
1901	1·98	1910	1·74

According to these figures illegitimacy very slowly increased up to 1901, and has since declined. The impression as to increase, conveyed by the method of the preceding table of comparing the illegitimate with the total births, is thus removed.

Illegitimacy is a social evil, and the following figures show with what calamitous results it is attended. The table appended gives, for 1910, and for the five years preceding, the death-rates of illegitimate children under 1 and under 5 years of age, as compared with legitimate children of like ages:—

Age.	Legitimate.		Illegitimate.		Total.	
	Deaths	Rate per 1,000 living.	Deaths.	Rate per 1,000 living.	Deaths.	Rate per 1,000 living.
Under 1 year—						
1905-1909	13,780	70·90	2,668	183·07	16,448	78·72
1910	2,865	67·20	532	183·45	3,397	74·61
Under 5 years—						
1905-1909	18,559	22·39	3,115	58·13	21,674	24·56
1910	3,960	21·62	603	52·03	4,563	23·43

It will be seen how unfavourable is the position, and how reduced is the chance of living of the illegitimate child as compared with the legitimate; since at each age the death-rate of the illegitimate is more than twice that of the legitimate. In 1910 nearly one-sixth of the illegitimate children born did not live through the first year.

LEGITIMATION-ACT OF 1902.

Any child born before the marriage of his or her parents (and whether before or after the passing of the Legitimation Act of 1902), whose parents have intermarried; or shall intermarry, shall be deemed on the registration of such child as provided in the Act to have been legitimated by such marriage from birth, and shall be entitled to all the rights of a child born in wedlock.

Provided the necessary statutory declarations are made, it is the duty of the Registrar to register such child, whether dead or alive, as the lawful

issue of such man and his wife. If the child has been previously registered as illegitimate, the Registrar shall also make a note of the entry under this Act in the Register where the previous entry was made. In all 1,743 such registrations have been made :—

Year.	Registration.	Year.	Registration.
1902	6	1908	238
1903	158	1909	267
1904	173	1910	288
1905	175	Total	1,743
1906	191		
1907	217		

PLURAL BIRTHS.

During the year 1910 there were six cases of triplets, consisting of 2 males and 16 females, and 484 cases of twins, 497 males and 471 females—in all, 986 children. Of the 490 cases of plural births, 472 were legitimate and 18 illegitimate. The number of children born as triplets and twins formed 2·17 per cent. of the total births.

The following table shows the number of cases of twins, triplets, and quadruplets born in New South Wales during the eighteen years 1893–1910, excluding those stillborn, and distinguishing legitimate and illegitimate :—

Cases of—	Legitimate.	Illegitimate.	Total.
Twins	6,833	355	7,188
Triplets	64	4	68
Quadruplets	3	...	3

The total number of confinements recorded during the seventeen years was 699,145. It follows, therefore, that per 1,000,000 confinements there were 10,281 cases of twins, 97 cases of triplets, and 4 cases of four children at a birth. Stated in another way, there were 10·4 plural births in every 1,000 confinements.

The smallest proportion of plural births is found amongst women below age 20; the proportion increases steadily with the age of the mothers until it reaches a maximum with women between the ages of 35 and 40 years, after which there is a decline, but the decline does not bring the ratio back to its starting-point, for at ages 45 and over the plural births are 1 to every 122 confinements recorded, whereas under 20 years the proportion is 1 to 196.

The results of the observations for the eighteen years 1893–1910 will be found in the following table; the figures refer to legitimate births only :—

Age-group of Mothers.	All Births.	Plural Births.	Plural Births per 1,000 of all Births.
Under 20 years	25,416	130	5·11
20–24 „	148,565	963	6·48
25–29 „	184,564	1,815	9·82
30–34 „	146,923	1,941	13·21
35–39 „	101,862	1,518	14·90
40–44 „	39,936	500	12·52
45 years and over... ..	4,259	35	8·22

It is a remarkable fact that of 6,900 plural births, 3,994 occurred to mothers whose ages were 30 years or upwards; this gives a proportion of 58 per cent., whereas of all legitimate births only 45 per cent. occurred at those ages.

NATURAL INCREASE.

The excess of births over deaths, or as it is called the "natural increase," was 29,342 in 1910, and the highest yet recorded. The excess of births over deaths does not show a steady increase or decrease, but fluctuates somewhat, as might be expected. In the whole State during the period from 1880 to 1910, the least excess was 16,886 in 1882, and the highest 29,342 in the year 1910. In the metropolis the least excess was in 1880, viz., 3,434, and the highest in 1910, when the number reached 9,839. In the country districts the number ranged from 12,278 in 1882 to 19,503 in 1910.

Year.	Natural Increase.					Increase Per cent. of population at end of previous year.
	Metropolis.	Country Districts.	Whole of State.			
			Males.	Females.	Total.	
1901	6,404	15,450	9,822	12,032	21,854	1·60
1902	7,065	14,124	9,787	11,402	21,189	1·54
1903	6,836	12,633	8,949	10,520	19,469	1·38
1904	7,540	15,767	11,124	12,183	23,307	1·63
1905	7,999	16,524	11,497	13,026	24,523	1·68
1906	8,281	17,692	12,351	13,622	25,973	1·74
1907	8,096	17,689	12,187	13,598	25,785	1·68
1908	8,825	17,610	12,320	14,115	26,435	1·68
1909	9,312	18,617	13,297	14,632	27,929	1·74
1910	9,839	19,503	14,094	15,248	29,342	1·78

The natural increase is now $1\frac{1}{2}$ per cent., as against $2\frac{1}{4}$ per cent. twenty years ago, the falling-off being due entirely to the decline in the birth-rate, as there has been a constant improvement in the death-rate.

Although the males born are more numerous than the females, the actual increase of population from the excess of births over deaths is greatly in favour of the females. The male population exceeds the female, and there is a correspondingly larger number of deaths of males. There is also a greater mortality rate amongst male than amongst female children, and from this cause alone the natural excess of male births is almost neutralised. During the ten years which closed with 1910, the number of females added to the community by excess of births exceeded the males by 14,950, or 13 per cent.

Although the rate of natural increase in New South Wales is low as compared with that of twenty years ago, it is not exceeded by any country outside Australasia, as will be seen from the following table. The figures represent the birth and death rates, and the difference between them (the natural increase) per 1,000 of population in each country—in the Australian States and New Zealand for 1910, and in the other countries for 1909:—

Country.	Birth-rate.	Death-rate.	Natural Increase.	Country.	Birth-rate.	Death-rate.	Natural Increase.
Tasmania ...	29·9	11·3	18·5	Sweden ...	25·6	13·7	11·9
Queensland ...	27·3	9·7	17·6	Hungary ...	37·0	25·1	11·9
New South Wales ...	27·3	9·7	17·6	Austria (1908) ...	33·5	22·3	11·2
Western Australia ...	26·8	9·7	17·1	England and Wales ...	25·6	14·5	11·1
New Zealand ...	26·2	9·7	16·5	Scotland ...	26·4	15·3	11·1
South Australia ...	25·1	9·7	15·4	Switzerland (1908) ...	27·1	16·2	10·9
Netherlands ...	29·1	13·7	15·4	Spain ...	32·6	23·4	9·2
Denmark ...	28·0	13·1	14·9	Belgium (1908) ...	24·9	16·5	8·4
Prussia ...	31·8	17·0	14·8	Chile ...	38·8	31·5	7·3
Roumania ...	41·7	27·8	13·9	Servia ...	36·5	29·3	7·2
Japan (1908) ...	33·9	21·0	12·9	Ireland ...	23·5	17·2	6·3
Victoria ...	24·0	11·3	12·7	France ...	19·6	19·3	0·3
Norway ...	26·1	13·5	12·6				

It will be seen that the countries with the highest birth-rate have not necessarily the highest rate of natural increase. The increase in population also depends upon the death-rate, which to a considerable extent is influenced

by the birth-rate. New South Wales, owing to its exceptionally favourable death-rate, stands third on the list, being exceeded by Tasmania and Queensland.

AGES OF MOTHERS.

During the eighteen years 1893-1910 the ages of the women giving birth to children ranged from 11 to 58 years. As might be expected, the majority of the very young mothers were unmarried; thus of 8,967 mothers under 18 years of age, 4,708 were unmarried. The total number of married women who gave birth to children during the eighteen years was 651,563, the ages of whom were as follow. The proportion of married mothers at each age per 10,000 of all ages is also shown:—

Ages of Married Mothers.	Number of Mothers.	Number of Mothers at each age per 10,000 of total Mothers.	Ages of Married Mothers.	Number of Mothers.	Number of Mothers at each age per 10,000 of total Mothers.
Years.			Years.		
13	2	...	25	37,646	578
14	19	...	26	37,992	583
15	133	2	27	37,106	570
16	900	14	28	37,255	572
17	3,205	49	29	34,565	530
18	7,520	115	30-34	146,923	2,255
19	13,637	209	35-39	101,862	1,563
20	18,360	282	40-44	39,936	613
21	25,936	398	45 years and over	4,259	65
22	31,327	481	Not stated	38	1
23	35,566	546			
24	37,376	574	Total ...	651,563	10,000

It is found that the ages of the mothers of one-fourth of the children born do not exceed 25 years, and that before women pass their twenty-ninth year they give birth to one-half their offspring. Twenty-two per cent. of the births occur after age 35, and less than 7 per cent. after age 40 is reached.

The mothers of illegitimate children are in some cases very young, as will be seen from the following table, which shows the ages of the mothers who gave birth to illegitimate children during the eighteen years 1893-1910. The proportion of unmarried mothers at each age per 10,000 of all ages is also shown:—

Ages of Unmarried Mothers.	Number of Mothers.	Number of Mothers per 10,000.	Ages of Unmarried Mothers.	Number of Mothers.	Number of Mothers per 10,000.
Years.			Years.		
11	1	...	27	1,531	322
12	2	...	28	1,390	292
13	27	6	29	1,183	248
14	125	26	30	1,142	240
15	507	107	31	670	141
16	1,360	286	32	812	171
17	2,686	564	33	672	141
18	3,902	820	34	682	143
19	4,659	979	35	661	139
20	4,491	944	36	579	122
21	4,376	920	37	451	95
22	3,746	787	38	488	103
23	3,259	685	39	405	85
24	2,641	555	40 and over.	924	194
25	2,208	464	Not stated..	133	28
26	1,869	393	Total ..	47,582	10,000

Two-thirds of the illegitimate children are born of mothers between the ages of 15 and 25, and more than one-half to women aged from 17 to 22 years.

DEATHS.

The deaths during 1910 numbered 16,191, equal to a rate of 9.71 per 1,000 of the population, which is 8 per cent. below the mean rate of the last ten years. This total includes 9,349 males and 6,842 females, so that amongst males the rate was 10.43, and amongst females 8.70 per 1,000, living of each sex. The average annual number of deaths of each of the sexes, with the rate per 1,000, in quinquennial periods, from 1870 is given below.

Period.	Average Annual Number of Deaths.			Death-rate per 1,000 of total Population.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
1870-74	4,391	2,948	7,339	15.58	12.32	13.93
1875-79	6,199	4,360	10,559	17.99	15.10	16.67
1880-84	7,286	5,124	12,410	16.55	14.14	15.46
1885-89	8,461	6,043	14,504	15.43	13.36	14.49
1890-94	8,877	6,344	15,221	14.06	11.77	13.01
1895-99	9,002	6,514	15,516	13.11	10.77	12.01
1900-04	9,195	6,733	15,928	12.50	10.18	11.40
1905-09	9,076	6,583	15,659	10.96	9.09	10.09
1910	9,349	6,842	16,191	10.43	8.70	9.71

The death-rate has fallen continuously amongst both sexes, but slightly more for males than for females. The death-rate for males is, however, about one-fifth higher than for females, the reason being that males are exposed to more risks than females, and that male infants are the more delicate. It will be noticed that the death-rate has declined largely since the period 1890-94, and is thus coincident with the decline in the birth-rate. The falling birth-rate has influenced the death-rate in so far as it has affected the age constitution of the population by reducing the proportion living at the first five years where the mortality is high, and at the same time increased the proportion living at ages from 5 to 20 where the mortality is low. The decline in the death-rate is also coincident with the inauguration of the metropolitan sewerage scheme, as mentioned below.

For comparative purposes a table of the death-rates per 1,000 for each of the Australian States, New Zealand, and a number of European countries during the last six years is given below:—

State.	1905-1909.	1910.	Country.	1904-1908.	1909.
Tasmania	10.85	11.34	Servia	23.2	29.3
Victoria	11.97	11.27	Roumania	25.3	27.8
South Australia ...	9.82	9.72	Hungary	25.4	25.1
Western Australia	10.86	9.71	Spain	24.7	23.4
New South Wales	10.09	9.71	France	19.6	19.3
New Zealand	9.66	9.71	Ireland	17.5	17.2
Queensland	10.05	9.70	Prussia	18.5	17.0
			Scotland	16.2	15.3
			England and Wales	15.3	14.5
			Netherlands ...	15.1	13.7
			Sweden	15.0	13.7
			Norway	14.2	13.5
			Denmark	14.3	13.1

The comparatively favourable conditions of Australasia will be manifest from an inspection of these rates.

It might have been expected that in any case the rates in the European countries would be higher than in New South Wales on account of the larger

proportions of old persons in their populations, but in addition it must be remembered that some of the endemic scourges of the old world are unknown in Australia; also, apart from climatic conditions, which are most favourable here, the social condition of the great body of the people is far superior to that of Europeans, and their occupations on the whole more conducive to health. The enforcement also of the provisions of many Acts of Parliament dealing with the general health of the community, *e.g.*, Public Health Act, Dairies Supervision Act, Pure Food Act, besides regulations framed by municipal and shire councils, conduce to the welfare and good health of the people.

DEATHS—METROPOLIS AND COUNTRY.

It is not possible to show the exact difference between urban and rural mortality in New South Wales, but an approximate idea may be obtained from a comparison of the experience of the metropolis with that of the country districts, although a few large towns are contained in the latter. Separating the State, therefore, into these two broad divisions, there were, during 1910, 6,365 deaths in the metropolis and 9,826 in the country, corresponding to the rates of 10·37 and 9·32 per 1,000 living respectively. The average annual number of deaths and the rate per 1,000 in each of these divisions since 1880, in five-year periods, is given in the subjoined table:—

Period.	Metropolis.		Country Districts.		New South Wales.	
	Average Number of Deaths.	Rate per 1,000.	Average Number of Deaths.	Rate per 1,000.	Average Number of Deaths.	Rate per 1,000.
1880-84	5,033	20·60	7,377	13·21	12,410	15·46
1885-89	6,181	19·47	8,323	12·18	14,504	14·49
1890-94	5,979	14·83	9,242	12·05	15,221	13·01
1895-99	5,634	12·30	9,882	11·86	15,516	12·01
1900-04	5,845	11·57	10,083	11·31	15,928	11·40
1905-09	5,979	10·58	9,680	9·81	15,659	10·09
1910	6,365	10·37	9,826	9·32	16,191	9·71

In both metropolis and country the rate has steadily improved, but very much more in the metropolis, so that there the rate is now very little higher than in the country districts, whereas twenty years ago it was 50 per cent. higher. The fall began in the metropolis after 1889, the year when the improved sewerage system was installed, and about the same time that the Dairies Supervision Act came into operation. The decline in the rates for each division and for the State during the twenty years will be further emphasised when it is stated that the metropolitan rate fell from 19·5 to 10·4 per 1,000, or 46·7 per cent. The rate in country districts declined from 12·2 to 9·3 or 23·8 per cent., and for the whole State from 14·5 to 9·7 or 33·1 per cent.

MORTALITY OF INFANTS AND YOUNG CHILDREN.

A further measure of the mortality in the metropolis and country, offering a most sensitive test, is obtained by a comparison of the death-rates of infants in each district.

Children under 1 year.—The number of children under 1 year of age who died in 1910 was 3,397, equal to a rate of 74·6 per 1,000 births. With the exception of the previous year this rate is the lowest on record, and is 14 per cent. below the mean rate for the last ten years. Male infants died at the rate of 81·0 per 1,000 births, and female infants at the rate of 67·9 per 1,000 births. To the total the metropolis contributed 1,329 deaths, or 82·0 per 1,000 births, and the country, 2,068, or 70·5 per 1,000 births.

The next table gives the average annual number of deaths of children under 1 year, in quinquennial periods since 1880, in the metropolis and country, and the proportion per 1,000 births.

Period.	Metropolis.		Country.		New South Wales.	
	Deaths under 1.	Rate per 1,000 Births.	Deaths under 1.	Rate per 1,000 Births.	Deaths under 1.	Rate per 1,000 Births.
1880-84	1,707	174.0	1,956	94.9	3,663	120.4
1885-89	2,168	164.6	2,256	95.2	4,424	120.0
1890-94	1,908	138.8	2,471	95.8	4,379	110.7
1895-99	1,646	134.4	2,572	103.7	4,218	113.9
1900-04	1,416	111.2	2,399	96.9	3,815	101.7
1905-09	1,255	86.7	2,035	74.5	3,290	78.7
1910	1,329	82.0	2,068	70.5	3,397	74.6

The infantile mortality rate has improved more in the metropolis; in fact, until 1900, in the country districts it was increasing. In the year 1904 there was a large decrease in both divisions compared with the rate for the previous five years, and this improvement continued in 1905 and 1906. In 1907, the following year, in consequence of an epidemic of whooping-cough, the rate took an upward movement, greater in the country than in the metropolis, but it has since declined. The rate in the country districts has always been more favourable than that in the metropolis, although the difference now is not nearly so great as twenty, or even ten, years ago.

Of the total number of deaths of infants under 1 year of age, more than one-fourth die within a week of birth; by the end of the first month the proportion is two-fifths; and after three months it reaches one-half. Judging by the experience of the last five years, it may be said that one in every 46 children born dies within a week of birth. The following statement shows for 1910, in comparison with the average of the five preceding years, the deaths per 1,000 births during each of the first four weeks after birth, and then for each succeeding month. The experience in the metropolis is distinguished from that in the country districts, and the sexes are taken together. Also for the year 1910, illegitimate children are distinguished from legitimate for the State as a whole.

Age.	Metropolis.		Country.		New South Wales.			
					1910.			
	1905-09.	1910.	1905-09.	1910.	1905-09.	Legitimate.	Illegitimate.	Total.
Under 1 week ...	23.9	22.7	21.5	20.2	22.4	20.2	34.5	21.1
1 week ...	4.8	4.6	4.0	4.1	4.3	4.2	5.5	4.3
2 weeks ...	3.6	2.5	3.2	2.7	3.3	2.6	2.8	2.6
3 " ...	2.6	2.8	2.5	2.0	2.5	2.1	4.8	2.3
Total under 1 month	34.9	32.6	31.2	29.0	32.5	29.1	47.6	30.3
1 month ...	7.7	8.3	7.1	7.1	7.3	6.7	19.7	7.5
2 months ...	6.9	6.5	5.4	5.6	5.9	4.7	24.1	5.9
3 " ...	6.8	6.2	5.2	5.5	5.8	4.8	19.7	5.7
4 " ...	6.3	5.1	4.6	4.8	5.1	4.3	13.8	4.9
5 " ...	4.9	3.7	4.1	3.6	4.4	2.9	15.2	3.7
6 " ...	4.6	3.3	3.7	3.6	4.0	2.9	11.4	3.5
7 " ...	3.7	3.4	3.2	2.4	3.4	2.5	7.6	2.8
8 " ...	3.0	3.2	2.9	2.5	2.9	2.7	3.1	2.8
9 " ...	3.2	3.3	2.7	2.6	2.9	2.6	6.2	2.8
10 " ...	2.4	3.9	2.4	1.7	2.4	2.0	9.6	2.5
11 " ...	2.3	2.5	2.0	2.1	2.1	2.0	5.5	2.2
Total under 1 year ...	86.7	82.0	74.5	70.5	78.7	67.2	183.5	74.6

In the first week of life the mortality is more than five times as great as in the second, third, or fourth weeks. From the first month to the second the mortality falls rapidly, and from the second to the twelfth gradually. Comparing the mortality in the two divisions of New South Wales—metropolitan and country—it is seen that at every stage of life children die more quickly in the metropolis. In 1910 the metropolitan rate was 82·0 and the country 70·5 per 1,000 births, the latter being 16 per cent. lower than the former. At the earlier ages the difference was least, the metropolitan rate being about one-tenth higher during the first four weeks. After the first month the difference fluctuated, but was greater in the metropolis at every age except the sixth month.

This table also shows the great waste of life among illegitimate children, the mortality under 1 year being 183·5 per 1,000, as compared with 67·2 among legitimate children. The largest proportional excess is not immediately after birth, but about two months later. During the first week the mortality of illegitimates exceeds that of legitimates by 71 per cent., thereafter it increases until in the second month the excess is 413 per cent., after this it drops irregularly until in the eleventh month the excess is about 176 per cent.

Children under 5 years.—Taking account of the first five years of life, it is found that there has also been a great improvement in the rates for those ages, and, at the same time, it is apparent that the excessive total death-rate in the metropolis as compared with the country districts is caused by the deaths in this group. At every period in the table the metropolitan rate is the higher—in some cases over 50 per cent., and never below 11 per cent. in excess.

The following table shows the mortality in each division, in quinquennial periods, since 1890, of children under 5 years of age:—

Period.	Metropolis.		Country.		New South Wales.	
	Number.	Rate per 1,000 living.	Number.	Rate per 1,000 living.	Number.	Rate per 1,000 living.
1890-94	13,370	48·48	17,728	31·43	31,098	37·03
1895-99	11,027	40·94	17,436	30·63	28,463	33·94
1900-04	9,233	36·02	16,049	29·41	25,282	31·52
1905-09	1,612	27·16	2,723	23·24	4,335	24·56
1910	1,751	26·06	2,812	22·05	4,563	23·43

The improvement in the metropolis has been greater than in the country; in the former the rate has decreased by 46 per cent. since 1890, and in the latter by 30 per cent. In the country the rate did not vary a great deal until 1904, when there was a large decline, which has continued. During the year 1910 there was a saving of the lives of 22 in every 1,000 children under 5 years of age in the metropolis and 9 in every 1,000 in the country, as compared with the mortality rate twenty years ago.

AGES AT DEATH.

The age and sex distribution of a population are most important factors in determining the death-rate; for instance, the rates at ages 5 to 50 are lower than for the whole population, so that a country with a high proportion at those ages, as in New South Wales, might expect to have a low death-rate. Again, a country with a high proportion of females will most likely have a favourable death-rate.

It has already been pointed out that results based on estimates of the numbers living in various age-groups at periods remote from a census must

be used with caution. And, therefore, no rates of that description are given in this report. It has been considered advisable to wait until the results of the Census of 1911 are available, when the rates may be discussed with more definiteness.

CAUSES OF DEATH.

One of the most important sections of vital statistics is that relating to causes of death, and in the following discussion the principal diseases in New South Wales are treated in detail.

Until 1906 the system of classifying the causes of death was that adopted by the Registrar-General, England. In 1906, however, at a conference of Australian Statisticians, it was agreed to adopt the Bertillon classification, and causes of death in New South Wales are now tabulated according to that classification. The Bertillon system differs in many cases from the old, and in some rather materially, so that a comparison of the results since 1906 with previous years is, to some extent, impaired.

In the following table will be found the principal causes of death arranged in order of fatality, together with the average number of deaths from similar causes during the previous five years, due allowance having been made for the increase in population:—

Causes of Death.	Number, 1910.	Average Number, 1905-09.	Causes of Death.	Number, 1910.	Average Number, 1905-09.
Organic Diseases of the			Whooping-cough...	174	147
Heart	1,537	1,403	Convulsions (under 5) ...	174	221
Endocarditis	54		Diabetes	165	127
Diarrhœa and Enteritis			Meningitis	165	158
(under 2)	1,144	1,168	Suicide	161	191
Diarrhœa and Enteritis			Congenital Malformations	132	102
(over 2)	287	335	Intestinal Obstruction ...	130	133
Cancer	1,179	1,138	Influenza	130	200
Tuberculosis—Lungs ...	1,024	1,085	Appendicitis	111	130
Old Age	921	1,029	Cirrhosis of the Liver ...	107	112
Accident	918	935	Gastritis	106	104
Pneumonia	865	974	Embolism, Thrombosis ...	101	70
Premature Birth	740	716	Measles	99	39
Bright's Disease	678	649	Acute Rheumatism	82	75
Hæmorrhage, &c., of the			Epilepsy	63	70
Brain	643	619	Syphilis	56	55
Bronchitis	477	566	Dysentery	47	91
Congenital Debility ...	378	552	Others	2,555	2,702
Typhoid Fever	294	278			
Puerperal Condition ...	261	295			
Diphtheria and Croup ...	233	151	All Causes	16,191	16,620

Of the six most numerous causes, there were increases in diseases of the heart, which may have been caused by the changes in classification, and in cancer. Of other important causes, pulmonary tuberculosis, pneumonia, accident, and bronchitis showed decreases.

As regards diseases ordinarily fatal to infants, there were decreases in congenital debility, convulsions, and diarrhœa and enteritis, and increases in malformations and premature birth.

The disease of small-pox is unknown in New South Wales; and in regard to any likelihood of this disease or others of a similar character being brought here by persons from other countries, it may be stated that all precautions are taken. Stringent regulations exist under a special statute for the enforcement of quarantine of shipping when deemed desirable. A statement showing the number of vessels and the passengers and crews thereof examined by Port Health Officers, may be found in Part Shipping of this Year Book.

VACCINATION.

Vaccination is not compulsory in New South Wales, and doubtless the general feeling of security in this State from infection of diseases accounts for the very small number of people who voluntarily become vaccinated by the Government medical officers.

The following is a return of persons vaccinated since the year 1901 :—

Age-Groups of Persons Vaccinated.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
Under 1 year ...	49	22	2	...	...	3	1	...	...	2
1 year and under 5 ..	331	128	43	2	5	10	2	2	3	59
5 years and under 10 ...	912	393	251	9	12	14	16	11	5	122
10 years and upwards ...	789	353	309	9	15	15	20	29	3	97
Total, New South Wales	2,081	896	605	20	32	42	39	42	11	280

TYPHOID FEVER.

The number of deaths from typhoid fever during 1910 was 294, equivalent to 1.76 per 10,000 living, which is 5.4 per cent. higher than the rate for the previous five years. As this is essentially a preventable disease, and readily yields to sanitary precautions, the rate is still high, notwithstanding the great improvement in the last twenty years. It is higher than in England, where in 1909 the rate was .60 per 10,000, or about one-third of the rate in New South Wales.

The number of deaths and rates since 1884 have been as stated below :—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	1,356	5.12	1,115	5.13	2,471	5.13
1889-93	959	3.11	714	2.74	1,673	2.94
1894-98	1,107	3.27	731	2.46	1,838	2.89
1899-1903	1,054	2.91	733	2.25	1,787	2.60
1904-08	748	1.85	507	1.43	1,255	1.66
1909	169	1.94	118	1.56	287	1.77
1910	196	2.19	98	1.27	294	1.76

The decrease between 1888 and 1893 was very marked, and is to be traced to the influence of the Dairies Supervision Act, which began to operate in 1889. From 1889 to 1903 the rate was very even, and did not decline to any extent, but during the next quinquennium there was a considerable improvement.

The next statement gives the rate in the metropolis and in the country districts during the last seventeen years, and, as will be noticed, the rate in the metropolis has been only about two-thirds of that in the remainder of the State. It would appear that the drainage of some of the country towns is very defective, and the water supply less pure than in the metropolis.

Period.	Metropolis.		Country Districts.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1894-98	507	2.26	1,331	3.24
1899-1903	426	1.73	1,361	3.09
1904-08	334	1.21	921	1.91
1909	86	1.44	201	1.96
1910	94	1.53	200	1.90

Most deaths occur in the summer and autumn. In 1910 there were 111 deaths in the summer months, December, January, February, and 95 in the autumn months, March, April, May.

MEASLES.

Measles was the cause during 1910 of 99 deaths, equal to a rate of .59 per 10,000 living. The rate for males was .56, and for females .64, the female rate being the higher, which is the usual experience. The following statement shows the deaths from measles and the rate per 10,000 living, for each sex, arranged in quinquennial periods since 1884 :—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	166	.63	165	.76	331	.69
1889-93	393	1.28	369	1.41	762	1.34
1894-98	338	1.00	324	1.09	662	1.04
1899-1903	160	.44	219	.67	379	.55
1904-08	82	.20	107	.30	189	.25
1909	8	.09	3	.04	11	.07
1910	50	.56	49	.64	99	.59

Measles is a disease chiefly affecting children, and is periodically epidemic; of the 99 deaths last year 79 were of children under 5 and 22 of children under 1 year of age. The rates would be more accurately stated if the deaths were compared with the children living of like ages. However, taking the table as it stands, it will be seen that the disease during 1909 and 1910 was much less fatal than in the preceding quinquennium, the rate being the lowest since 1900. The high rates during the second and third periods were due to severe outbreaks in 1893 and 1898.

SCARLET FEVER.

In 1910 the number of deaths from this disease was 23, equivalent to a rate of 0.14 per 10,000 of the population, which is 30 per cent. lower than the rate during the previous five years. The number of deaths in the metropolis was 9, and in the remainder of the State 14, the equivalent rates being 0.15 and 0.13 respectively per 10,000 living in each, which is a departure from the usual experience, which discloses a rate in the metropolis about three times as large as in the country districts. Since 1884 the deaths from scarlet fever and the rates for each sex have been as follows :—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	287	1.08	342	1.57	629	1.30
1889-93	185	.60	236	.90	421	.74
1894-98	162	.48	218	.73	380	.60
1899-1903	84	.23	114	.35	198	.29
1904-08	88	.22	91	.26	179	.24
1909	10	.11	20	.27	30	.18
1910	9	.10	14	.18	23	.14

Over the whole period the deaths from scarlet fever show a steady and most satisfactory decrease in both sexes. Generally the rate for females is higher than for males. Like measles, it is an epidemic disease chiefly affecting children.

WHOOPIING-COUGH.

Whooping-cough is another of the diseases which chiefly affect children. During 1910 the deaths numbered 174, of which 93 were of boys and 81 of girls. The rate was 1.04 per 10,000 living, and is 18 per cent. above the average of the previous five years. The deaths and rates for each sex since 1884 have been as stated below :—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	327	1.24	472	2.17	799	1.66
1889-93	495	1.61	666	2.55	1,161	2.04
1894-98	343	1.01	502	1.69	845	1.33
1899-1903	573	1.58	726	2.23	1,299	1.89
1904-08	369	.91	445	1.25	814	1.07
1909	8	.09	9	.12	17	.10
1910	93	1.04	81	1.05	174	1.04

Taking the whole period covered by the table, this disease does not show any marked tendency to decline, the rates being maintained by epidemics. Of the children who died in 1910, 115 were under 1 year of age and 171 under 5.

DIPHTHERIA AND CROUP.

Diphtheria, with which is included membranous croup, was the cause of 207 deaths in 1910, while croup, so defined, was responsible for 26. The rate for 1910 was 1.40 per 10,000 living, which is the highest since 1898, being 54 per cent. above the rate for the previous five years. In the metropolis the number of deaths was 69, and in the remainder of the State 138, corresponding to rates of 1.13 and 1.31 per 10,000 living in each. The following table shows the number of deaths and the rates in five-year periods since 1884 :—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	1,069	4.04	980	4.51	2,049	4.25
1889-93	1,433	4.65	1,399	5.36	2,832	4.98
1894-98	712	2.10	710	2.39	1,422	2.24
1899-1903	310	.86	299	.92	609	.89
1904-08	367	.91	338	.95	705	.93
1909	96	1.11	89	1.18	185	1.14
1910	113	1.26	120	1.56	233	1.40

Until 1893 the rate did not show very much diminution, but it has since declined considerably, and is now less than one-fourth of what it was twenty years ago. Nearly 90 per cent. of the persons who die from diphtheria are under 10, and about 60 per cent. under 5 years of age.

NOTIFIABLE DISEASES.

The following statement shows the total number of cases of notifiable diseases reported to the Board of Health, with regard to the metropolitan district during the years 1901 to 1910, together with the death-rate and the fatalities per 100 cases:—

Diseases.	Notified Cases.		Deaths.		Fatality per cent. (= Deaths per 100 cases).
	Number.	Rate per 10,000 of Population.	Number.	Rate per 10,000 of Population.	
Scarlet Fever	12,477	22·8	199	0·4	1·6
Diphtheria	8,383	15·3	475	0·9	5·7
Typhoid Fever	6,878	12·5	695	1·3	10·2

Infantile paralysis was added to the list of notifiable diseases in the year 1911.

With the exception of an unusual prevalence of diphtheria, fortunately of a very mild type, the notifications of diseases were less than in the previous year.

INFLUENZA.

There were 130 deaths attributed to influenza during the year, equal to a rate of ·78 per 10,000, which is 35 per cent. below the average of the previous five years. The rate is the same for both sexes. Prior to 1891 this disease was very little known, or rather few deaths were ascribed to it, but in that year there was a very severe epidemic, and it has since always been more or less prevalent. The majority of deaths from influenza occur in the three months, August, September, and October.

TUBERCULOUS DISEASES.

To the several forms of tuberculous diseases, 1,250, or 8 per cent. of the total deaths in New South Wales during 1910 are attributable, equivalent to 7·50 per 10,000 living. This rate was 7·3 per cent. below the average for the previous five years.

In addition to phthisis with 1,024 deaths as shown below, tuberculosis of meninges caused 78 deaths, equal to a rate of ·47 per 10,000 living, and tuberculosis of the peritoneum, which includes tabes mesenterica, caused 61 deaths—29 males and 32 females—equal to a rate of ·37 per 10,000. These types of the disease are confined mainly to children—57 of the victims of the former, or 73 per cent., were under 5 years of age, and of the latter, 34, or 56 per cent. Other tuberculous diseases caused 87 deaths, being at the rate of ·52 per 10,000 living.

PHTHISIS.

Phthisis, or pulmonary tuberculosis, with 1,024 victims, caused 6·3 per cent. of the total deaths, and more than any other disease except cancer. This is equivalent to 6·14 per 10,000 living, the rate amongst males being 6·41 and amongst females 5·84 per 10,000. In 1910 the rate was the lowest yet recorded, being 6 per cent. lower than the average rate for the five years 1905–09.

The table below shows the deaths from this disease and the rates for each sex since 1884.

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	3,132	11·83	2,022	9·30	5,154	10·69
1889-93	3,269	10·61	1,925	7·38	5,194	9·13
1894-98	3,191	9·43	1,983	6·68	5,174	8·15
1899-1903	3,322	9·18	2,304	7·09	5,626	8·19
1904-08	2,985	7·40	2,184	6·16	5,169	6·82
1909	590	6·78	450	5·97	1,040	6·40
1910	574	6·41	450	5·84	1,024	6·14

The decrease in the number of deaths from phthisis and other forms of tuberculosis has taken place since the passing of the Dairies Supervision Act of 1886, the Pure Food Act, 1908, the Diseased Animals and Meat Act of 1892, and the Public Health Act of 1896, and may be attributed to their operation. The Board of Health is empowered by these Acts to supervise dairies and the production of milk, cream, butter, and cheese, and to prevent the sale of tuberculous meat. The Dairies Supervision Act was improved in the powers conferred by the Pure Food Act, 1908, which makes the finding of a diseased cow in a dairy herd *prima facie* evidence that its milk had been sold for food, and a prosecution for selling diseased milk can be instituted by the health inspectors.

If the deaths be distinguished in the two divisions of the metropolis and the country districts, as in the following table, it will be seen that the rate in the former is 24 per cent. higher than in the latter :—

Period.	Metropolis.		Country Districts.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1894-98	2,302	10·26	2,872	6·99
1899-1903	2,490	10·04	3,136	7·14
1904-08	2,184	7·94	2,985	6·18
1909	403	6·73	637	6·21
1910	429	6·99	595	5·65

PHTHISIS A NOTIFIABLE DISEASE IN SYDNEY.

It may be stated that within the City of Sydney, consumption of the lungs is a notifiable disease. The observance of the health regulations, and the general and widespread improvements and ventilation of business and residential buildings and places of amusement, and the destruction in recent years of very many unhealthy tenements, has resulted in a most satisfactory fall in the rate of mortality from consumption. Although the population of the city has considerably increased, the deaths from this disease have decreased from 589 in the year 1903 to 429 in 1910.

DEATH-RATE COMPARATIVELY SMALL IN NEW SOUTH WALES.

The Australian climate is certainly favourable to those who suffer from pulmonary diseases, and a large number of persons suffering from phthisis visit Australia in search of relief. Many of these being in the last stages of

the disease, succumb after a short residence in the State. The figures for the year 1910 show that out of the 1,024 persons who died from phthisis, 701 were born in Australia, and of the remainder, 49 had been resident in the Commonwealth less than five years, 38 from five to twenty years, and 212 for more than twenty years; in 24 instances neither birth-place nor length of residence was stated.

Phthisis is the most deadly of all diseases, and the following comparison of the rates in various countries is interesting. The rates are stated per 1,000 of total population, and thus do not take specifically into account either age or sex, which are material factors. If anything, this omission makes the comparison more favourable to New South Wales and other Australian States, where the proportion of aged persons is smaller than in the countries of the old world. There is also possibly a variation in the methods of classification of the deaths in the various countries.

Country.	Death-rate per 1,000 of Total Population.		Country.	Death-rate per 1,000 of Total Population.	
	1899-1908.	1909.		1899-1908.	1909.
Servia	2.79	.....	Victoria	1.08	.85
Ireland	2.11	1.84	South Australia ...	.82	.79
Norway	2.01	.....	Queensland ... ..	.77	.60
Switzerland	1.85	.....	<i>New South Wales</i> ...	.75	.64
Japan	1.46	.....	Western Australia ...	.74	.68
Scotland	1.44	.....	New Zealand ... ..	.69	.61
Netherlands	1.37	1.23	Tasmania ... ..	.64	.62
England and Wales	1.21	1.08			

New South Wales stands fourth from the bottom of the above list. The rate in all the European countries is higher than in New South Wales. The experience of the countries in the table, with the exception of Servia, is similar to that of New South Wales, namely, that the rate is decreasing. In Servia the rate is very high, and shows no tendency to decrease.

TUBERCULOSIS IN NEW SOUTH WALES.

The author has published, in a separate pamphlet, a statistical analysis of the mortality from tubercular diseases during the thirty-three years, 1876 to 1908. The experience of the whole period shows that the mortality has been heavier amongst males than females, the death-rates heavier in the metropolis than in the country, and the incidence of the disease higher for females than for males up to the age of 40 years, and above that age the male incidence is the higher.

A comparison of the death-rates in individual years of the period shows that the time of the greatest absolute rate in all classes, geographical or sexual, or as to time of life, was about the year 1885, and the present-day figures show the lowest rates. An improvement is observable in every age-group, but it is mainly to the infantile group that the marked decline in the death-rate must be ascribed. The country rates were uniformly less than the metropolitan, and the female less than the male. Of the different types of tuberculosis, phthisis provides the great bulk of the mortality.

MINERS PHTHISIS COMMISSION IN WESTERN AUSTRALIA.

It is noted that in a Miners' Phthisis Commission Report presented to the Parliament of Western Australia in December, 1911, the principal recommendations are:—(1) Compulsory medical examination and certification of

the miners before employment. (2) All miners now engaged to be examined three months after the passing of the proposed Act, and to be medically examined every six months. (3) The employment of uncertificated miners to be an offence. (4) Miners medically rejected for tuberculosis or intermediate fibrosis to be sent to a sanatorium at the expense of the State. (5) A miners' claims board to be created to deal with the employment of medically rejected men, such board to be financed by the State until a scheme for employment is perfected. (6) A miners' insurance trust to be established, the men to contribute one-third of the premium, on a basis of one-half per cent. of their wages up to £250 yearly; mine-owners also to contribute one-third, and the State the remaining third; miners who are adequately insured in an ordinary insurance company or benefit society to be exempted from contributing. (7) Contributing miners to receive medical attendance and medicine free.

ROYAL COMMISSION (BRITISH) ON TUBERCULOSIS.

In June, 1911, the final Report of the (British) Royal Commission on Tuberculosis was presented to the British Parliament, and the important conclusions arrived at are well worthy of reference.

The questions submitted to this Commission were as follow :—

1. Whether the disease in animals and man is one and the same.
2. Whether animals and man can be reciprocally infected with it.
3. Under what conditions, if at all, the transmission of the disease from animals to man takes place, and what are the circumstances favourable or unfavourable to such transmission.

This Commission carried out numerous and exhaustive experiments, and after exactly ten years' work they published their final report in June, 1911.

The more important conclusions arrived at by this Commission were as follow :—

So far as the identity of the bacillus in the tuberculosis of man and of animals is concerned, while there are certain differences between the two in their methods of growth under artificial conditions and in the amount of disease they produce in various experimental animals, yet (to use the words of the report) "we prefer to regard these two types as varieties of the same bacillus, and the lesions which they produce, whether in man or in other mammals, as manifestations of the same disease."

The reciprocity of the disease in cattle and man was of course the more important question. The conclusion arrived at was that mammals and man can be reciprocally infected with the disease (tuberculosis), and as researches showed that many cases of fatal tuberculosis, even pulmonary tuberculosis, in the human had been produced by the bacillus known to cause the disease in cattle, the possibility of the infection of humans by cattle tuberculosis cannot be denied.

Actual investigation of the human cases showed the following results, which are not without significance :—

The great majority of the cases of tuberculosis *amongst adults* was shown to have been produced by bacilli of the human type; while in cases of tuberculosis *amongst children* a very large percentage were produced by bacilli of the bovine type, and the Commission express the view that whatever may be the source of tuberculosis in adolescents and adults the evidence goes to demonstrate that a considerable amount of the tuberculosis of childhood is to be ascribed to infection with bacilli of the bovine type, transmitted to children in meals consisting largely of the milk of the cow.

Abundant evidence was produced to show that not only are tubercle bacilli present in the milk when the cow has a tuberculous udder, but that they may also be present in the milk of a cow presenting no evidence whatever of disease of the udder.

The practical deductions which may be made from these results of the scientific work of the Commission are—

Firstly—that all practicable means should be adopted of preventing a person suffering from tuberculosis from infecting those who come into contact with him.

Secondly—to quote the report—“that existing regulations and supervision of milk production and meat preparation be not relaxed; that, on the contrary, the Government should cause to be enforced throughout the Kingdom, food regulations planned to afford better security against the infection of human beings through the medium of articles of diet derived from tuberculous animals.”

Also, it was made clear that, inasmuch as pigs are frequently found to be infected with tuberculosis of bovine origin, restrictions should apply to the flesh of pigs equally with that of cattle.

CONFERENCE OF CHIEF HEALTH OFFICERS.

Reference may be made to the Conference of the Chief Health Officers of the various States of Australia held in Melbourne in February, 1911. The resolutions of this Conference are of great importance, as they define the measures considered by the most experienced authorities to be necessary for the campaign against tuberculosis in Australia.

The first and the twenty-sixth resolutions clearly define the position taken up by the Conference upon the question of human and bovine tuberculosis.

Resolution 1 reads—“The only form of tuberculosis of which it is important to take cognisance for preventive purposes is Phthisis (Consumption of the Lungs, Consumption of the Throat).”

The resolution deals almost exclusively with Phthisis infection from man to man as being chiefly responsible for human tuberculosis.

Resolution 26 reads—“Bovine tuberculosis should be controlled under legal powers conferred on Departments of Agriculture, supplemented by similar powers conferred on Health Departments administering health and pure food laws.”

With regard to bovine tuberculosis—infection from animal to man—the Conference, whilst fully recognising tuberculous meat, and more especially tuberculous milk, as possible sources of tuberculous disease in the human subject, has nevertheless concerned itself chiefly with that source of infection, viz., human sputum containing the tubercle bacillus, against which the Conference conceives preventive measures should be primarily directed.

The Conference dealt very completely with the measures considered necessary for the prevention of infection from man to man, *e.g.*, notification and detection of early cases, home management and segregation of consumptives, sanatoria dispensaries, disinfection, &c., and concluded with two important resolutions concerning consumptive immigrants as follow:—

“The Inter-State migration of consumptives, as a matter of expense, may be practically ignored, as the number of migrants is relatively small.

In respect to the immigration of persons suffering from consumption, it would be advantageous if the present law were extended in the direction of that which has force in the United States of America—namely, that cases which escape detection on entering the Commonwealth of Australia may be followed up for some time subsequent to admission, during which such cases could be dealt with as prohibited immigrants.

The present system of separate State medical examination of assisted immigrants does not afford sufficient protection to Australia against the entrance of consumptives or other diseased (or infirm) persons, and should be replaced by a uniform system of medical examination at the ports of departure by Commonwealth officers."

HOSPITAL TREATMENT OF PHTHISIS IN NEW SOUTH WALES.

Persons suffering from phthisis may receive treatment of a temporary character at general hospitals, but the special care and treatment of this disease is undertaken at the Government Hospital at Waterfall, and the Queen Victoria Homes for Consumptives at Wentworth Falls and Thirlmere. To further combat the disease the National Association for the Prevention and Cure of Consumption propose to establish anti-tuberculous dispensaries in this State, and inaugurate an educational crusade.

As the disease is considered communicable, preventable, and curable, many people consider that notification should be made compulsory throughout the State.

CANCER.

There were 1,179 deaths from cancer in 1910, equal to a rate of 7·07 per 10,000 living, which is 3·5 per cent. above the average for the preceding five years. The deaths during the year were 623 amongst the males and 556 amongst the females, the rates being 6·95 and 7·21 per 10,000 living of each sex respectively.

It would appear that cases of cancer are increasing in New South Wales much faster than might be expected from the actual increase in population, so that during the last twenty years the rates have been doubled. It has been stated that the more skilful diagnosis of late years, especially of internal cancer, may account for part of the increase; but how far this is so it is impossible to say, and there seems to be no doubt that the spread of cancer is real. There are at present in New South Wales no special hospitals for the treatment of this disease. Persons suffering therefrom are received in general hospitals, and the old and destitute are cared for at the Government institutions for the infirm. The following table shows the deaths and rates per 10,000 living for each sex since 1884 :—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	859	3·25	732	3·37	1,591	3·30
1889-93	1,262	4·10	1,038	3·98	2,300	4·04
1894-98	1,719	5·09	1,387	4·68	3,106	4·89
1899-1903	2,295	6·34	1,877	5·77	4,172	6·07
1904-08	2,671	6·62	2,418	6·82	5,089	6·71
1909	608	6·98	558	7·40	1,166	7·18
1910	623	6·95	556	7·21	1,179	7·07

The rates have increased steadily, although the female rate fluctuates to some extent.

The ages of the deceased ranged from 16 days to 99 years, but cancer is essentially a disease of old age; 96 per cent. were aged 35 and over.

Cancer is probably the most feared of all diseases, inasmuch as no specific remedy is known, and in all countries for which there are records the death-rate is on the increase. In the following table the rates based on the whole population are given for certain countries. The comparison, being uncorrected for age incidence, is somewhat crude, but is apparently favourable to the Australian States.

Country.	Death-rate per 1,000 of Total Population.		Country.	Death-rate per 1,000 of Total Population.	
	1899-1908.	1909.		1899-1908.	1909.
Switzerland	1.29	...	South Australia ..	.67	.76
Netherlands ... ..	.98	1.03	<i>New South Wales</i> ...	.64	.72
Norway ... ..	.94	...	Tasmania ... ..	.57	.67
England and Wales ...	.87	.95	Italy ... ..	.57	.64
Scotland ... ..	.87	...	Queensland ... ..	.56	.60
Victoria ... ..	.75	.80	Western Australia ...	.46	.66
Ireland ... ..	.69	.80	Hungary ... ..	.39	.44
New Zealand ... ..	.67	.73	Servia ... ..	.10	...
Prussia ... ..	.67	.75			

DIABETES.

The deaths attributed to diabetes in 1910 numbered 165, equal to a rate of 0.99 per 10,000 living, which is 30 per cent. above the average for the preceding five years. The rate for males was 0.79 and for females 1.22 per 10,000 living of each sex. Most of the deaths occur after middle life. Of the total, 112 were of persons over 45 years of age.

MENINGITIS.

Inflammation of the brain or its membranes caused 165 deaths, equal to a rate of 0.99 per 10,000 living. This is 3 per cent. above the average rate during the previous five years. The disease is principally one of childhood. Of those who died during the year, 97, or 59 per cent., were under 5 years of age. Included in the total are 33 deaths from cerebro-spinal fever.

HÆMORRHAGE OF THE BRAIN.

To cerebral hæmorrhage and apoplexy there were due 531 deaths, of which 266 were males and 265 females. The rate is 3.19 per 10,000 living, 2.96 for males and 3.44 for females, in each case being below the average.

The following table shows the rates for these diseases for each sex in quinquennial periods since 1884:—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	778	2.97	467	2.15	1,245	2.58
1889-93	796	2.58	618	2.37	1,414	2.48
1894-98	943	2.79	710	2.39	1,653	2.60
1899-1903	1,050	2.90	788	2.42	1,838	2.68
1904-08	1,303	3.23	1,039	2.93	2,342	3.09
1909	323	3.71	286	3.79	609	3.75
1910	266	2.96	265	3.44	531	3.19

Generally the male rate is a little higher than the female. There has been slight difference in the rate for many years—it has fluctuated, first with a tendency to decrease down to 1895, and then to increase. Possibly the variations in the rate are due to some extent to differences in classification.

CONVULSIONS OF CHILDREN.

Convulsions of children (under 5 years) caused 174 deaths during 1910, or 1.04 per 10,000 living, which is 22 per cent. below the average for the previous five years. This disease, however, being entirely confined to children under 5, the rate is more properly stated as a proportion of those ages. Comparing therefore the deaths with the number living at those ages, the rate during 1910 was .89 per 1,000, as against 1.17 the average of the previous five years.

INSANITY.

Insanity is classed as a distinct disease of the nervous system, but of the total number of deaths of insane persons in 1910 only 149 deaths appear in the tables as due to insanity (including general paralysis of the insane), the remaining deaths being attributed to their immediate cause.

The death-rate of persons dying from insanity, including general paralysis of the insane, per 10,000 living, was 1.24 in the case of males, and .49 in the case of females.

Practically all the insane persons in New South Wales are under treatment in the various Hospitals for the Insane. At the end of 1910 there were 6,148 persons under official control and receiving treatment. This is equal to 3.64 insane persons per 1,000 of population. The average during the preceding five years was 3.55 per 1,000.

The percentage of deaths of insane persons in New South Wales is comparatively light. The following table has been computed on the basis of the average number of patients resident in Hospitals for the Insane.—

Period.	Males.		Females.		Persons.	
	Deaths in Hospitals for Insane.	Proportion of average number resident.	Deaths in Hospitals for Insane.	Proportion of average number resident.	Deaths in Hospitals for Insane.	Proportion of average number resident.
1894-98	782	6.86	366	5.18	1,148	6.21
1899-1903	1,021	7.77	465	5.54	1,486	6.91
1904-1908	1,280	8.24	613	6.00	1,893	7.35
1909	240	7.14	125	5.58	365	6.52
1910	280	7.97	145	6.22	425	7.27

Of the insane who died during 1910, 132 persons, or nearly one-third of the whole, were aged 65 years and upwards.

DISEASES OF THE HEART.

Diseases of the heart were the cause of 1,638 deaths, equivalent to a rate of 9.83 per 10,000 living, which is 9.1 per cent. above the average for the preceding five years. Of the total, 918 were males and 720 females, the rates, 10.25 and 9.34 per 10,000 living respectively. The deaths and death-rates for each sex since 1884 are shown below:—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	2,149	8.12	1,390	6.39	3,539	7.34
1889-93	2,250	7.30	1,357	5.20	3,607	6.34
1894-98	2,434	7.19	1,478	4.98	3,912	6.16
1899-1903	2,917	8.06	1,932	5.94	4,849	7.06
1904-1908	3,791	9.40	2,727	7.69	6,518	8.60
1909	923	10.60	677	8.98	1,600	9.85
1910	918	10.25	720	9.34	1,638	9.83

Included in the total are deaths from pericarditis, endocarditis, organic diseases of the heart, and angina pectoris. The largest number of deaths (about one-half of the total) was attributed to "heart disease" without further definition—that is to say, without the particular cardiac lesion being specified.

This table shows that heart disease generally is increasing, although it may be that part of the increase is due to a better acquaintance with the action of the heart, and that many deaths which were formerly attributed to old age are now referred to some form of heart disease.

The death-rate for males is higher than for females, probably due to the greater risks and shocks to which males are exposed. Among both sexes there was a large increase in the rate after 1898.

The ages of the persons who died ranged up to 95 years; and, as might be expected, the great majority of deaths occurred after middle age had been passed, 1,337 being of persons over 45 years of age.

BRONCHITIS.

Bronchitis caused 477 deaths in 1910, equivalent to 2.86 per 10,000 living, which is 16 per cent. below the mean rate of the previous five years. The rate for males was 3.01 and for females 2.69; of the total deaths 186 were stated to be due to acute and 291 to chronic bronchitis. This disease chiefly affects the extremes of life. In 1910, of those who died, 138, or 29 per cent., were under 5, and 277, or 58 per cent., over 65 years of age.

PNEUMONIA.

The total deaths from pneumonia were 865, equal to a rate of 5.19 per 10,000 living. Included in the total are 329 deaths which were ascribed to broncho-pneumonia. Among males the rate was 5.86, and among females 4.41 per 10,000 living of each sex respectively. The rate is 11.3 per cent. below the average of the previous five years. Pneumonia is more fatal to males than to females, as the following table, giving the rates by sexes since 1884, shows:—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	2,032	7.68	1,301	5.98	3,333	6.91
1889-93	2,158	7.00	1,373	5.26	3,531	6.21
1894-98	2,514	7.43	1,528	5.15	4,042	6.37
1899-1903	3,191	8.81	2,000	6.15	5,191	7.55
1904-1908	2,816	6.98	1,824	5.14	4,640	6.12
1909	517	5.94	351	4.65	868	5.34
1910	525	5.86	340	4.41	865	5.19

There has been little reduction in the mortality for some years. There was a drop after 1888, but it then steadily increased, with a few fluctuations, to the highest point on record in 1902. The rates, however, for the last seven years have been much below the figure for that year. Most deaths occur in the cold weather. In 1910 there were 282 deaths, or 33 per cent. in the three months June to August. Pneumonia is most destructive amongst young children and old persons.

DIARRHŒA AND ENTERITIS.

In 1910 there were ascribed to these two causes 1,431 deaths, or 8·59 per 10,000 living, which is 3 per cent. lower than the average of the preceding five years. The rate was almost the same for both sexes. The following table gives the deaths and rates of males and females since 1884 :—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	3,412	12·89	3,048	14·02	6,460	13·40
1889-93	3,451	11·20	2,851	10·92	6,302	11·07
1894-98	4,042	11·94	3,638	12·26	7,680	12·09
1899-1903	4,422	12·22	3,901	12·00	8,323	12·11
1904-1908	3,714	9·20	3,000	8·46	6,714	8·85
1909	834	9·58	652	8·65	1,486	9·14
1910	769	8·58	662	8·59	1,431	8·59

There was a large drop in the rate after 1888, probably due to the influence of the Dairies Supervision Act. During the next fifteen years there was a gradual increase, but in 1904 a very great improvement ensued, which has since been fairly maintained.

According to the Bertillon classification, deaths from these diseases are divided into two groups, one including children under 2 years of age, and the other all persons 2 years of age and over. In the first group there were 1,144, or 80 per cent. of the total, and in the second 286. The mortality rate of children under 2 years during 1910 was slightly lower than the average during the previous quinquennium, being 14·19 per 1,000 children living at those ages, as compared with 14·66 during 1905-9.

Of the total deaths from these causes, 488, or 34 per cent., occurred in the three summer months, January, November, and December; and 578, or 40 per cent., in February, March, and April. As a rule, about 50 per cent. of the deaths occur in the summer months.

DISEASES OF DIGESTIVE SYSTEM.

The deaths referred to these diseases numbered 2,167, equivalent to 13·00 per 10,000 living, the rates for males and females being 13·13 and 12·86, as compared with 14·18 and 12·90 respectively, the rates during the preceding five years. Deaths in this system were ascribed mainly to diarrhœa and enteritis, which have already been discussed. Gastritis caused 106 deaths, 50 being of children under 5 years of age; and 23 deaths were ascribed to gastric ulcer.

Cirrhosis of the liver was responsible for 107 deaths, the rate being ·64 per 10,000 living, which is slightly lower than the average of the five years 1905-9. This disease is much more prevalent amongst males than females—the rate for the former in 1910 being ·83, and for the latter, ·43 per 10,000 living in each sex, and is of interest in connection with the subject of intemperance. Appendicitis was the cause of 111 deaths, the rate being ·67 per 10,000, which is 14 per cent. below the average of the previous five years. The rate for the males was ·76, and for the females, ·56 per 10,000 living. This disease is much more fatal to males than females.

BRIGHT'S DISEASE.

Of the 920 deaths due to diseases of the urinary system, 678 were caused by chronic nephritis or Bright's disease, and 59 by acute nephritis. Taking these two diseases together, the rate was 4.42 per 10,000 living, for males 5.19 and for females 3.53. In 1910 the rate was 4 per cent. above the quinquennial average. The changes in the rates of these two diseases, acute and chronic nephritis, will be seen below:—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	626	2.37	386	1.78	1,012	2.10
1889-93	907	2.94	570	2.18	1,477	2.60
1894-98	1,291	3.81	821	2.77	2,112	3.33
1899-1903	1,659	4.58	996	3.06	2,655	3.86
1904-1908	2,056	5.10	1,199	3.38	3,255	4.29
1909	447	5.14	256	3.40	703	4.33
1910	465	5.19	272	3.53	737	4.42

During the whole period covered by the table the rate, both for males and females, has been practically doubled. The male rate is about half as high again as for females. Not many persons under 35 die from nephritis, the proportions per cent. for 1910 being: under 35, 15.6; and over 35, 84.4.

DEATHS IN CHILD-BIRTH.

The number of deaths of women in 1910 from the diseases of child-bed was 261, corresponding to a rate of 5.8 per 1,000 births. Of these, 123 were due to puerperal septicæmia, 24 to accidents of pregnancy, and 114 to other puerperal accidents. The deaths resulting from various diseases and casualties incident to child-birth are about 7 per 1,000 births, or 1 death to every 145 births. During the eighteen years ended 1910, the deaths were as follows:—

Cause of Death.	1893-1896	1897-1900	1901-1904	1905-1908	1909-10.	1893-1910.	
						Total Deaths.	Proportion due to each cause.
Accidents of Pregnancy ...	132	197	176	280	58	843	per cent 17.45
Puerperal Hæmorrhage ...	142	159	135	106	46	588	12.17
Puerperal Septicæmia ...	369	362	378	295	217	1,621	33.55
Albuminuria and Eclampsia ...	100	126	113	141	87	567	11.73
Other Casualties of Child-birth	272	279	256	301	105	1,213	25.10
	1,015	1,123	1,058	1,123	513	4,832	100.00

Owing to the changes in classification of causes of death, the figures for the last six years are not quite on the same basis as those for previous years, but the differences are only slight.

During the eighteen years, 1893-1910, of the 4,832 women who died from diseases of child-birth, 4,342 were married, and 490 single, and as there were during this period 651,563 legitimate and 47,582 illegitimate births—reckoning cases of twins and triplets as single births—it follows that amongst married women the fatal cases average 6.7 per 1,000 births, or 1 in 150, and amongst single women 10.3 per 1,000, or 1 in 97.

VIOLENCE.

Of 16,191 persons who died during the year, 1,192, or 7·36 per cent., met with violent deaths. The rate per 10,000 living was 7·15 and slightly lower than the mean rate during the previous quinquennium. The mortality rate from violence amongst males is nearly three times as great as for females, since of the 1,192 deaths of this kind, 939, equal to 10·48 per 10,000 living, were of males, and 253, equal to 3·28 per 10,000, were of females.

Accident or Negligence.

The number of fatal accidents during the year was 918, viz., 721 of males and 197 of females, equal to rates of 8·05 and 2·53 per 10,000 living of each sex. Accidental deaths have always been numerous in the country. Of the total number registered during 1910, 272 occurred in the metropolis and 646 in the country districts, and as a rule about three-fourths of the accidents occur in the country, which contains about two-thirds of the total population.

The number of deaths from accident and the rates since 1884 are shown in the table below:—

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	3,550	13·41	944	4·34	4,494	9·32
1889-93	3,666	11·90	966	3·70	4,632	8·14
1894-98	3,498	10·33	1,095	3·69	4,593	7·23
1899-1903	3,432	9·47	1,103	3·39	4,535	6·59
1904-1908	3,143	7·79	1,055	2·97	4,198	5·54
1909	658	7·56	221	2·93	879	5·41
1910	721	8·05	197	2·53	918	5·51

Thus, although the accident rate is still high, it has been steadily decreasing, and among males the fall has been more rapid than amongst females. In 1910 the rate showed a small decrease as compared with the average of the previous five years. For the years prior to 1894 the rates are really slightly lower than are shown in the table, because certain causes formerly classed as accidents are now recorded elsewhere.

Experience shows that out of every 1,000 accidents 157 are due to burns or scalds, 152 to drowning, 144 to vehicles and horses, 82 to falls, 74 to railways and tramways, 52 to mines and quarries, and 51 to weather agencies. Among males the greatest number are due to drowning, and among females to burns or scalds.

Suicide.

The number of deaths due to this cause during 1910 was 161, equal to a rate of 0·97 per 10,000 living, which is 15 per cent. below the average of the previous five years. The number of males was 134, equal to a rate of 1·50 per 10,000 living, and of females 27, equal to 0·35 per 10,000, so that the rate for males is about four times as great as that of the females.

Period.	Males.		Females.		Persons.	
	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.	Deaths.	Rate per 10,000.
1884-88	428	1·62	96	·44	524	1·09
1889-93	519	1·68	110	·42	629	1·11
1894-98	679	2·01	169	·57	848	1·34
1899-1903	651	1·80	142	·44	793	1·16
1904-1908	719	1·78	160	·45	879	1·16
1909	148	1·70	45	·60	193	1·19
1910	134	1·50	27	·35	161	0·97

The means usually adopted by men for self-destruction are shooting, poisoning, stabbing, or hanging. Amongst women, weapons are avoided, and poison has been the means most often used; the poisons selected being those which cause the maximum of pain, such as strychnine, arsenic, and phosphorus. Out of every 100 cases, during the last five years, 31 were by shooting, 26 by poisoning, 15 by hanging, 15 by stabbing, and 9 by drowning.

Experience shows that morbidity is largely influenced by the seasons. As regards suicides, this is most plainly seen amongst males, who are more inclined to attempt self-destruction in the last quarter of the year. For the ten years ended 1910 the proportion of male suicides per 1,000 during the first quarter of the year was 251; second, 239; third, 242; and fourth, 268. December, January, and February, the three hottest months of the year, usually have the largest record of suicides.

Female suicides classified by quarters for the same period show the highest proportion during the first quarter of the year, the figures being as follow:—First quarter, 277 per 1,000; second, 241; third, 238; and fourth, 244.

SEASONAL PREVALENCE OF DISEASES.

The statement below shows the principal diseases, the deaths from which vary according to the seasons. The figures are based on the experience of the eight years 1903–10, and represent the proportion of deaths in each month per 1,000 deaths during the year from each cause. The actual returns were adjusted on account of the unequal number of days in the various months to render the figures comparable.

Month.	Typhoid Fever.	In- fluenza.	Diph- theria and Croup.	Whoop- ing Cough.	Phthisis.	Pneu- monia.	Bron- chitis.	Diarrhœa, Enteritis, and Dysentery.	Bright's Disease.
January ...	142	42	40	70	79	49	47	156	76
February ..	141	19	75	73	72	44	43	134	73
March ...	148	19	82	60	76	47	43	113	69
April ...	133	33	114	91	80	60	59	112	77
May ...	112	46	128	86	85	76	82	71	86
June ...	70	85	127	75	86	102	115	40	88
July ...	37	102	107	91	91	118	133	29	98
August ...	27	171	101	97	93	137	145	23	97
September.	26	185	79	93	92	123	126	24	91
October ...	25	149	46	88	89	94	86	45	81
November.	44	93	51	83	81	83	71	110	81
December..	95	56	50	93	76	67	50	143	83
	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

The chief feature of the above table is the contrast between typhoid fever and diarrhœa and enteritis on the one hand, and influenza, pneumonia, and bronchitis on the other. In the first group the influence of the warm weather is the controlling factor, and in the second the cold weather. The warmest three months in the year are December, January, and February; and the coldest June, July, and August. Phthisis does not vary a great deal throughout the year, but the rates show that in the cold months the deaths are most frequent. Bright's disease also is most fatal in the cold weather.

CAUSES OF INFANTILE MORTALITY.

The mortality of infants in New South Wales was exceptionally low during the seven years 1904-10. An upward movement in 1907, when the rate was higher than in any of the three preceding years, was followed by a decline in the following year, and the rate in 1909 was the lowest on record. In 1910 there was a slight increase. Prior to 1904 there had been practically little change in the rate for thirty years, but from 1860 up 1873 the rate was lower than in the years immediately preceding 1904. Although at very early ages children are most susceptible to the attacks of disease, and the rates for preventable diseases are highest, there is no doubt that many children succumb to disease through parental ignorance of the proper food or treatment required. In New South Wales, out of every 10,000 children born, nearly 1,000 die before reaching their fifth year.

As the death-rate of infants is usually looked upon as a reliable sanitary test, and as it is of interest to know the diseases most fatal to children, the following statement has been prepared. It shows the principal causes of death of children—under 1 per 1,000 births and under 5 per 1,000 living—in 1910 and in the five years 1905-09, distinguishing deaths in the metropolis from those in the country districts.

Cause of Death.	Deaths under 1, per 1,000 births.						Deaths under 5, per 1,000 living.					
	Metropolis.		Country.		New South Wales.		Metropolis.		Country.		New South Wales.	
	1905-09.	1910.	1905-09.	1910.	1905-09.	1910.	1905-09.	1910.	1905-09.	1910.	1905-09.	1910.
Measles	0·2	0·7	0·3	0·4	0·2	0·5	0·2	0·5	0·1	0·3	0·2	0·4
Scarlet Fever	0·1	0·0	0·0	0·1	0·0	0·1	0·1	0·1	0·1	0·1	0·1	0·1
Whooping-cough	1·7	3·5	2·2	2·0	2·0	2·5	0·8	1·3	0·7	0·6	0·7	0·9
Diphtheria and Croup	0·2	0·4	0·2	0·3	0·2	0·4	0·5	0·7	0·5	0·8	0·5	0·8
Tuberculosis—Meninges	0·7	0·8	0·3	0·3	0·4	0·5	0·4	0·6	0·1	0·1	0·2	0·3
„ Peritoneum	0·6	0·5	0·8	0·4	0·7	0·4	0·2	0·2	0·2	0·2	0·2	0·2
„ Other Organs	0·2	0·1	0·3	0·1	0·2	0·1	0·1	0·1	0·1	0·1	0·1	0·1
Syphilis	1·8	1·5	0·3	0·4	0·8	0·8	0·4	0·4	0·1	0·1	0·2	0·2
Meningitis	1·4	1·1	0·8	1·1	1·0	1·1	0·6	0·6	0·4	0·5	0·5	0·5
Convulsions	2·9	2·3	4·7	3·3	4·1	2·9	0·9	0·8	1·3	1·0	1·2	0·9
Bronchitis	2·9	2·6	3·5	2·4	3·3	2·5	0·9	0·7	1·0	0·7	1·0	0·7
Broncho-pneumonia	3·1	4·4	2·7	2·7	2·8	3·3	1·2	1·6	1·0	1·0	1·1	1·2
Pneumonia	1·9	1·7	1·8	1·9	1·9	1·8	0·9	0·8	0·8	0·7	0·8	0·8
Diarrhoea and Enteritis	27·1	23·6	17·8	18·8	21·1	20·5	8·2	7·2	5·7	5·7	6·5	6·2
Congenital Malformations	2·9	2·5	2·0	2·6	2·3	2·6	0·8	0·6	0·5	0·7	0·6	0·6
Infantile Debility	13·2	6·4	12·7	9·3	12·9	8·3	3·4	1·6	3·1	2·2	3·2	1·9
Premature Birth	18·0	19·3	14·8	14·6	16·0	16·2	4·4	4·7	3·5	3·3	3·8	3·8
All others	7·8	10·6	9·3	9·8	8·8	10·1	3·2	3·6	4·0	4·0	3·7	3·8
Total	86·7	82·0	74·5	70·5	78·7	74·6	27·2	26·1	23·2	22·1	24·6	23·4

There was a considerable improvement in 1910, as compared with the preceding five years, notwithstanding they were years of low mortality. Among children under 1, the reduction amounted to 5.2 per cent., and among children under 5, to 4.9 per cent.

It will be seen that the high mortality of infants is due to the deaths of children who from the beginning are greatly weakened either from immaturity or debility at birth. Of children under 1, the deaths from these causes in 1910 were equal to 27.1 per 1,000 births, or 36 per cent. of the total deaths of children at that age. A previous table shows that the mortality during the first month of life is about two-fifths of the total mortality during the whole of the first year, and 75 per cent. of this mortality is due to deaths from congenital debility or defects. After these, in 1910, came diarrhoea and enteritis, which were responsible for deaths to the extent of 20.5 per 1,000 births. The deaths from infectious diseases amounted to 3.5 per 1,000 births, of which whooping-cough caused 2.5. Respiratory diseases are rather fatal to children, bronchitis, in 1910, accounting for 2.5, broncho-pneumonia for 3.3, and pneumonia for 1.8 per 1,000 births. Of these causes broncho-pneumonia showed an increase in 1910. Convulsions had a death-rate of 2.9, tuberculous diseases of 1.0, and meningitis (not tuberculous) of 1.1 per 1,000 births.

It has already been pointed out that life in the metropolis is more unfavourable to children than in the country. The total excess mortality in the metropolis is 16 per cent., but the excess from diarrhoea and enteritis is 26 per cent.

Turning to the second part of the table, dealing with children under 5, it will be found that the most fatal causes are congenital debility, diarrhoea and enteritis, pneumonia, convulsions, and whooping cough in the order stated.

DEATHS OF ILLEGITIMATE CHILDREN COMPARED.

A further statement is given below in which the causes of death of illegitimate children are compared with those of legitimate children. The figures represent the deaths of children under 1 year per 1,000 births in the State as a whole in 1910.

Causes of Death.	Deaths under 1, per 1,000 Births.		
	Legitimate.	Illegitimate.	Total.
Measles	4	1.7	.5
Scarlet Fever ... ..	...	.3	.1
Whooping-cough	2.4	4.2	2.5
Diphtheria and Croup	4	...	.4
Tuberculosis—Meninges	5	.7	.5
„ Peritoneum	4	1.0	.4
„ Other Organs	1	...	.1
Syphilis	4	7.2	.8
Meningitis	1.0	2.4	1.1
Convulsions... ..	2.8	5.5	2.9
Bronchitis	2.4	2.8	2.5
Broncho-pneumonia	3.2	4.8	3.3
Pneumonia	1.6	4.8	1.8
Diarrhoea and Enteritis	16.9	72.8	20.5
Congenital Malformations	2.5	4.2	2.6
Infantile Debility	7.6	19.3	8.3
Premature Birth	15.7	24.5	16.2
All others	8.9	27.2	10.1
Total... ..	67.2	183.4	74.6

The reasons for the greater mortality of illegitimate children are seen from this table. Excluding diseases which may be ascribed to inherent weakness, there is strong evidence of neglect or want of care as regards these unfortunate children. Infantile debility showed 48.0 per 1,000 births as against the legitimate rate, 25.8. Diarrhoea and enteritis were 72.8 as compared with 16.9; respiratory diseases 12.4 as compared with 7.2; and syphilis 7.2 as compared with 0.4. Among the epidemic diseases the great difference was in deaths from whooping-cough—4.2 as against 2.4.

PRIVATE FINANCE.

CURRENCY AND COINAGE.

In terms of the Coinage Act, 1909, passed by the Commonwealth Government, and operating throughout Australia, "every transaction, dealing, matter, and thing whatever relating to money, or involving the payment of, or the liability to pay any money, shall be made, executed, entered into, done, and had, according to the coins which are current and are legal tender under the Act." Previously the coins current corresponded to the British Monetary System, and were issued by the Royal Mint of England through its Sydney Branch.

Under the Act, authority is vested in the Federal Treasurer to issue silver and bronze coin made to his order, of specified denominations; and in addition, a nickel coinage is authorised, the denominations, fineness, and weight of which will be specified by proclamation.

A tender of payment, made in coins of British or Australian issue, is legal, if made in gold coins, for any amount; in silver coins, for a maximum amount of forty shillings; and in bronze, to a maximum of one shilling.

Consequent upon the passage of the Commonwealth Coinage Act, 1909, an Order-in-Council and a Proclamation were issued in England revoking the order of 1896, by which certain parts of the Imperial Coinage Act, 1870, and its subsequent amendments, were made applicable to the several colonies of Great Britain.

The standards of weight and fineness of the coins denominated in the Schedule to the Coinage Act, 1909, are as follows:—

Denomination of Coin.				Imperial Weight.	Metric Weight.	Remedy Allowance. Weight per piece.	
				grains.	grams.	Imperial grains.	Metric grams.
Gold—							
Five pounds	...	...	...	616·37239	39·94023	1·00	0·06479
Two "	...	...	...	246·54895	15·97611	·40	·02592
Sovereign	...	...	...	123·27447	7·98805	·20	·01296
Half-sovereign	...	...	...	61·63723	3·99402	·15	·00972
Silver—							
Florin	...	...	...	174·54545	11·31036	·997	·0646
Shilling	...	...	...	87·27272	5·65518	·578	·0375
Sixpence	...	...	...	43·63636	2·82759	·346	·0224
Threepence	...	...	...	21·81818	1·41379	·212	·0138
Bronze—							
Penny	...	...	...	145·83333	9·44984	2·91666	·18899
Halfpenny	...	...	...	87·50000	5·66990	1·75000	·11339

In case of British coin in circulation, the current weight is as specified in the law of the United Kingdom applicable to the coin.

It will be seen that the principal variation of the Australian from the British System lies in the elimination of the half-crown from the Australian silver coinage.

For gold coins, the standard fineness is $\frac{11}{12}$ gold, $\frac{1}{12}$ alloy, or millesimal fineness, 916·6; for silver coins, $\frac{37}{100}$ fine silver, $\frac{3}{100}$ alloy, or millesimal fineness, 0·925; bronze coins are of mixed metal—copper, tin, and zinc.

Standard or sovereign gold of 22 carats fineness is worth £3 17s. 10½d. per oz.; pure or 24 carat gold is worth £4 4s. 11½d. per oz., but the gold contained in deposits sent to the Sydney Branch of the Royal Mint, for melting, assaying, and coining, is valued at the rate of £3 17s. 10½d. per oz. standard or sovereign gold, and there is thus no premium on gold.

Standard silver, owing partly to the greatly increased output, and still more to its demonetisation in a large part of Europe, and the restrictions placed upon its free coinage in countries which still have a double standard of coinage, has decreased in value by nearly 57 per cent. since 1875. The average price of standard silver in the London market for various years since that year is given in the annual reports of the Deputy Master of the Royal Mint as follows :—

Year.	Price per standard oz.	Year.	Price per standard oz.	Year.	Price per standard oz.
	d.		d.		d.
1875	56 $\frac{1}{2}$	1895	29 $\frac{5}{8}$	1907	30 $\frac{3}{4}$
1880	52 $\frac{1}{2}$	1900	28 $\frac{5}{8}$	1908	24 $\frac{3}{4}$
1885	48 $\frac{5}{8}$	1905	27 $\frac{1}{2}$	1909	23 $\frac{1}{2}$
1890	47 $\frac{1}{2}$	1906	30 $\frac{5}{8}$	1910	24 $\frac{1}{2}$

It will be noticed that the average price for 1910 shows some degree of recovery from the low prices of the previous two years; the fluctuations in value during 1910 are shown in the following table of average monthly prices :—

Month.	Price per standard oz.	Month.	Price per standard oz.	Month.	Price per standard oz.
	d.		d.		d.
January ...	24 $\frac{1}{2}$	May ...	24 $\frac{1}{2}$	September ...	24 $\frac{1}{2}$
February ...	23 $\frac{1}{2}$	June ...	24 $\frac{3}{8}$	October ...	25 $\frac{1}{8}$
March ...	23 $\frac{1}{8}$	July ...	25	November ...	25 $\frac{1}{2}$
April ...	24 $\frac{1}{2}$	August ...	24 $\frac{1}{8}$	December ...	25 $\frac{1}{8}$

The nominal value of one ounce of silver coined into eleven sixpences is 5s. 6d., and of one pound (avoirdupois) of bronze coined into pence is taken as 4s., and into halfpence or farthings 3s. 4d.

MINTING.

The Royal Mint of England has four branches, viz., one each at Sydney, Melbourne, Perth, and Ottawa (Canada). The earliest established of the Australian Branches was the Sydney Branch, opened on 14th May, 1855, the Melbourne Branch being opened in 1872, and the Perth in 1899.

The total weight of gold sent for coinage to the Sydney Branch in the period from its foundation, to the 31st December, 1910, was 34,349,067 oz., valued at £126,873,273. Of this quantity New South Wales produced 11,282,004 oz., of the value of £41,940,764, the amount from each source being as follows :—

Where produced.	Weight.	Value.
	oz.	£
New South Wales ...	11,282,004	41,940,764
Victoria ...	1,446,864	5,938,107
Queensland ...	16,388,766	58,232,391
South Australia ...	93,679	323,680
Tasmania ...	137,845	483,957
New Zealand ...	4,603,073	18,444,617
Other Countries ...	77,391	269,923
Old Coin, &c. ...	319,445	1,239,834
Total ...	34,349,067	126,873,273

Nearly the whole of the gold mined in New South Wales and Queensland, and a big proportion of the output of the other States and New Zealand, is received at the Sydney Mint for coinage. The value of gold coin and bullion issued up to the end of 1910 was £126,656,726, of which £120,296,500 represented coin; the value of sovereigns and half-sovereigns being as follows :—

Year.	Sovereigns.	Half-sovereigns.	Total.
	£	£	£
1855 to 1900	96,676,500	2,867,500	93,544,000
1901	3,012,000	.....	3,012,000
1902	2,813,000	42,000	2,855,000
1903	2,806,000	115,500	2,921,500
1904	2,986,000	.....	2,986,000
1905	2,778,000	.....	2,778,000
1906	2,792,000	154,600	2,946,000
1907	2,539,000	.....	2,539,000
1908	2,017,000	269,000	2,286,000
1909	2,057,000	.....	2,057,000
1910	2,135,000	237,000	2,372,000
Total ... £	116,611,500	3,685,000	120,296,500

Only gold coins have been struck at Sydney Mint, but silver and bronze of English coinage were also issued. By arrangement, the Australian coins issued up to the present date have been struck at the London Mint, and forwarded to the Sydney Branch, whence they were distributed at the order of the Federal Treasurer.

The first issue of bronze coin from the Sydney Mint took place in 1868, of silver, in 1879; the values of each to the end of the year 1910 being—bronze, £106,450, and silver, £1,239,400. The value of the coins issued is shown in the following table :—

Year.	Silver Coin.							Bronze Coin.
	Crowns and Double Florins.	Half-crowns.	Florins.	Shillings.	Six-pences.	Three-pences.	Total.	
	£	£	£	£	£	£	£	£
1868 to 1900	1,300	217,600	164,600	172,000	69,800	92,300	717,600	56,310
1901	.....	25,000	23,000	24,000	5,000	6,400	83,400	5,500
1902	.....	200	1,000	1,000	4,800	4,800	11,800	3,000
1903	.....	2,400	4,200	2,800	1,400	5,200	16,000	3,720
1904	.....	23,600	6,800	200	5,600	7,000	43,200	2,320
1905	.....	3,800	.....	.....	3,600	3,400	10,800	2,000
1906	.....	35,000	15,000	12,000	8,600	8,000	78,600	4,000
1907	.....	68,000	55,000	30,000	14,800	10,000	177,800	10,000
1908	.....	7,000	22,600	20,000	7,000	10,800	67,400	5,600
1909	.....	5,000	2,400	6,000	3,200	4,200	20,800	5,000
1910	.....	6,000	.....	.....	3,000	3,000	12,000	9,000
Total ... £	1,300	393,600	294,600	268,000	126,800	155,100	1,239,400	106,450

The average price of silver during 1910 was 2s. 0 $\frac{1}{2}$ d. per oz., which for 11·1 oz. gives the sum of £1 2s. 10 $\frac{3}{4}$ d.; and the difference between the nominal value of silver and the average price per standard ounce represents the seigniorage or gross profit. Full allowance being made for mint expenses and the loss incurred by the purchase of worn silver at its nominal value, the British Government has derived a substantial profit from the silver coin issued in the Commonwealth.

The profits accruing from the issue of a local coinage form part of the revenue of the Federal Treasury. The Australian silver coin so issued during 1910 was valued at £142,300, made up as follows:—

	£
Florins	61,500
Shillings	42,200
Sixpences	28,100
Threepences	10,500

No bronze coins were issued.

The gold bullion issued from the Mint includes pure gold in small quantities for the use of jewellers, chemists, and others, but the bulk consists of small bars of fine gold for export to India. The amount of gold bullion issued during 1910 was valued at £27,353, the total from 1855 to the end of 1910 being 1,542,006·99 ounces, valued at £6,360,226.

Worn gold coins have been received at the Mint for recoinage since 1876, silver coins since 1873. The nominal value of gold coin withdrawn from circulation during 1910 was £32,130, and for the whole period since the opening of the Mint, £1,058,699.

Worn British silver coin of the value of £3,716 was withdrawn from circulation, through the Sydney Mint, during 1910. The aggregate value of silver coin withdrawn between 1892 and 1910 was £268,076, this being forwarded to London for recoinage. British silver coin of the value of £12,500 was also withdrawn and exported for re-issue in other parts of the British Empire, being replaced by Australian silver coin of equivalent value and denomination.

The cost of maintenance of the Sydney Branch of the Royal Mint is borne by the State Government, £15,000 being set apart annually for that purpose. Special votes for limited amounts for construction, repairs, and furniture have also been made.

The receipts of the Mint, which are paid into the Consolidated Revenue, represent charges for coining gold, fees for assays, &c., and hitherto, profits on sale of silver. Payment is made for all silver contained in deposits in excess of 8 per cent., of the gross weight, at a rate fixed by the Deputy Master from time to time. On the 12th May, 1902, the rate was proclaimed at 1s. 6d. per oz. fine, and this is still ruling.

For assaying and coining gold, the charge is 1d. per ounce standard, and on all gold insufficiently refined and toughened for direct conversion into coin, a charge is made, the maximum being at the rate of 3d. per ounce gross, and the minimum 1d., with 1s. per ounce for all base metal extracted, on deposits containing more than 5 per cent. of base metal, the minimum charge on one deposit being 6s.

The total receipts of the Sydney Mint since its establishment are shown below:—

Year.	Charges on Gold.	Profit on Sale of Silver.	Fees for Assays and Crushings, and Proceeds of Sweep.	Total Mint Receipts (paid into Consolidated Revenue).
	£	£	£	£
1855 to 1900	483,823	107,677	86,326	677,826
1901	9,623	6,572	2,016	18,211
1902	8,108	5,254	2,034	15,396
1903	8,793	8,499	2,116	19,408
1904	11,145	8,869	1,725	21,739
1905	10,158	8,196	1,068	19,422
1906	9,083	7,846	2,565	19,494
1907	6,836	4,884	2,136	13,856
1908	6,484	3,440	922	10,846
1909	6,149	4,141	698	10,988
1910	6,143	3,926	643	10,712
Total £	566,345	169,304	102,249	837,898

The issues of gold coin from the various branch Mints in Australia and Canada during 1910 compare as follows :—

	Sovereigns.	Half-sovereigns.	Total.
	£	£	£
Sydney	2,135,000	237,000	2,372,000
Melbourne	3,054,547	...	3,054,547
Perth	4,690,625	...	4,690,625
Ottawa	28,012	...	28,012
Total £	9,908,184	237,000	10,145,184

The withdrawal of light gold coin in Australia is effected through the Sydney and Melbourne Mints, which were authorised to receive such coin to the value of £250,000 during the financial year, 1910–11. The actual amount withdrawn at these Mints was only £88,917 for the period, as follows :—

Denomination.		Nominal value.	Value of deficiency.			
			Weight.	Fineness.	Total.	Per piece.
		£	£ s. d.	£ s. d.	£ s. d.	d.
Sydney	{ Sovereigns ...	15,245	125 2 1	Nil.	125 2 1	1·909
	{ Half-sovereigns ...	14,897	313 12 4	2 2 10	315 15 2	2·543
Melbourne	{ Sovereigns ...	52,099	466 16 6	7 5 8	474 2 2	2·184
	{ Half-sovereigns ...	6,676	196 3 7	1 10 4	197 13 11	3·554

Worn British silver coin sent to England during 1910 from the Sydney Mint, was valued at £6,248. In the years between 1872 and 1910 the new silver coin issued in New South Wales represented £1,414,700, the worn coin withdrawn from circulation in New South Wales during the period being £263,614. The net issue was £1,151,086. The bronze coin issued in the period, 1874–1910, represented a value of £92,950.

PAPER CURRENCY.

Bank Notes.

Prior to 1910 the control of paper currency vested in the several private banking institutions which had used their right to issue bank notes, but note circulation in New South Wales, in conformity with the general tendency throughout the financial world, has not expanded during recent years, in proportion either to population or to the volume of business transactions, the principal cause operating to curtail such circulation being the increase of facilities for operating on deposits by cheques, as evidenced by the growing volume of business in the Banks Exchange Settlement Office. In New South Wales, note currency issued by banks was subject to a note tax at the rate of 2 per cent. per annum, by which the State benefited to the extent of £33,900 for the year 1909–10, but which has now been replaced by a 10 per cent. Commonwealth tax.

Of the sixteen banks operating in New South Wales, three have had no note issue whatever, being simply trading banks of discount and deposit; of the remainder the note circulation in proportion to the deposit liability has been little more than 3 per cent., being almost a negligible quantity in the total liabilities. Against this note liability no special reserve was required by law, but in cases of institutions registered under the Companies Act, 1899, as limited companies, a specific provision renders such companies as issue notes subject to unlimited liability in respect thereof.

The following figures will show the stationary position in regard to note circulation, by relating the total liability as regards notes and bills of banking institutions operating in New South Wales, to the mean population :—

Year.	Circulation in—		Total.	Per capita.
	Notes.	Bills.		
	£	£	£	£
1860	949,849	62,505	1,012,354	2.95
1870	695,366	50,515	745,881	1.52
1880	1,260,772	51,698	1,312,470	1.80
1890	1,567,605	127,442	1,695,047	1.53
1900	1,447,641	209,905	1,657,546	1.21
1909	1,758,913	315,916	2,074,829	1.30
1910	2,243,128	370,199	2,613,327	1.61

The purpose of the note issue was primarily to obviate the necessity for keeping gold reserves in branch banks, the circulation being confined practically to country districts, and the lowest value for which notes were issued being £1.

Australian Notes.

As a consequence of the Australian Notes Act passed in 1910 by the Federal Parliament, the Commonwealth Treasurer was authorized to issue notes, which are legal tender throughout the Commonwealth, and are redeemable in gold at the seat of Federal Government. These notes are issuable in the following denominations :—10s., £1, £5, £10, and any multiple of £10, and against the note liability the Treasurer was bound in terms of the Act, to hold in gold coin a reserve of not less than one-fourth of the notes in circulation up to £7,000,000, and a pound for pound equivalent of notes issued in excess of £7,000,000. By an amending Act passed in 1911, and devised to operate from July, 1912, this pound for pound reserve above £7,000,000 has been repealed, and a minimum 25 per cent. reserve fixed against all issues.

Queensland was the only State affected by the prohibition of a State issue, its note issue not redeemed representing at December, 1910, £1,692,506, for which Australian notes are being substituted gradually; the imposition of a 10 per cent. tax upon notes issued or re-issued, as against the 2 per cent. taxation imposed formerly by the New South Wales Government, must necessarily result in the speedy replacement of bank notes by Australian notes. At December, 1910, the value of bank notes in circulation in Australia was nearly £6,000,000, and at December, 1911, the Australian notes issued and unredeemed represented £10,156,358, made up as follows :—

Denomination.	Notes.	Value.
£	No.	£
1... ..	3,511,163	3,511,163
5... ..	652,689	3,263,445
10... ..	172,421	1,724,210
20... ..	19,887	397,740
50... ..	17,814	890,700
100... ..	3,691	369,100
	4,377,665	10,156,358

Against this issue the Federal Treasurer held in gold coin a reserve of £4,949,422, being in excess of the statutory minimum under the Act of 1910. Under that Act the balance of the reserve, or any part thereof, could be invested by deposit in a bank, or in securities of the United Kingdom, the Commonwealth, or a State. Further, as cover for the notes additional to the gold reserve, Treasury bills to the total amount of the notes were issuable by the Treasurer, within or beyond the limits of the Commonwealth. A maximum penalty of £100 is impossible for any attempt whatever to copy the Australian notes.

MONEY ORDERS AND POSTAL NOTES.

Exchange by means of the money order and postal note is conducted by the Post and Telegraph Department of the Commonwealth. By money order, remittances may be forwarded from the principal post offices of New South Wales to any part of the world, the orders being sent either direct to the place of payment if within the Commonwealth, or through intermediary agencies to places outside Australia. The postal note system enables exchanges to be effected throughout the Commonwealth, its original object being to afford means of transmitting small amounts of less than £1 to places within the State. So far as small remittances within the State are concerned, the money order and postal note systems are both effective; but as public convenience is met by the postal note, the money order system is in fact confined almost entirely to amounts exceeding £1.

The money order system was initiated in January, 1863. In that year there were three orders issued for every hundred persons in the State, and the total value of the orders was £53,862; in 1910 the number was 611,358, or 38 per 100 inhabitants, and the total value £2,806,025. The growth of the business has been due mainly to the extension of the sphere of operations in and beyond the State, and to the greater appreciation of the system, especially by the wage-earning class of the community. Appended is a statement of the business transacted in 1910 by means of money orders:—

Issued in New South Wales.			Paid in New South Wales.		
Payable in—	Notes.	Value.	Issued in—	Notes.	Value.
Commonwealth of Australia—	No.	£	Commonwealth of Australia—	No.	£
New South Wales	462,299	2,311,711	New South Wales	452,439	2,308,056
Victoria	36,798	145,462	Victoria	19,499	85,867
Queensland	15,737	73,812	Queensland	33,696	151,417
South Australia	11,266	45,073	South Australia	9,006	37,700
Western Australia	3,040	20,400	Western Australia	13,545	70,305
Tasmania	4,671	19,619	Tasmania	6,105	23,591
Other Countries—			Other Countries—		
United Kingdom	56,370	121,440	United Kingdom	17,372	55,936
Canada	442	1,458	Canada	832	3,252
Cape Colony	455	1,470	Cape Colony	680	2,238
Ceylon	233	655	Ceylon	201	668
Fiji	449	639	Fiji	2,866	10,871
Germany	1,215	4,362	Germany	472	2,305
German New Guinea	22	450	German New Guinea	197	1,361
Hong Kong	793	2,746	Hong Kong	305	944
India	1,440	11,272	India	617	1,918
Italy	953	5,300	Italy	41	171
Marshall Islands	1	6	Marshall Islands	26	436
Mauritius	45	61	Mauritius	15	135
Natal	108	522	Natal	455	1,810
New Zealand	9,700	29,119	New Zealand	36,345	92,977
Orange River Colony	11	36	Orange River Colony	99	394
Papua	39	129	Papua	754	4,210
Samoa	28	145	Samoa	352	2,933
Straits Settlements	35	85	Straits Settlements	146	494
Tonga	24	52	Tonga	253	1,432
Transvaal	216	762	Transvaal	1,251	5,159
United States of America	4,363	9,239	United States of America	2,758	12,660
Total issued in New South Wales	611,358	2,806,025	Total drawn on New South Wales	600,327	2,879,300

The following table distinguishes orders drawn on New South Wales from those drawn on other countries. The amount of money transmitted to countries outside New South Wales was exceeded by the money received from other countries in every year of the last decennium. The value of money orders issued and paid in the State at intervals since 1895 is shown in the following table:—

Year.	Issued in New South Wales.			Paid in New South Wales.		
	Drawn on New South Wales.	Drawn on other Countries.	Total.	Issued in New South Wales.	Issued in other Countries.	Total.
	£	£	£	£	£	£
1895	985,771	283,429	1,269,200	984,509	262,726	1,247,235
1900	1,182,554	325,413	1,507,967	1,178,713	362,822	1,541,535
1905	1,746,866	329,280	2,076,146	1,757,229	425,400	2,182,629
1906	1,915,896	351,241	2,267,137	1,910,183	440,115	2,350,298
1907	2,015,332	418,565	2,433,897	2,012,735	493,699	2,506,434
1908	2,106,085	433,180	2,539,265	2,110,765	535,285	2,646,050
1909	2,295,187	450,977	2,746,164	2,289,273	551,366	2,840,639
1910	2,311,711	494,314	2,806,025	2,308,056	571,334	2,879,390

A commission is paid to those countries to which money is transmitted in proportion to the amount of the orders forwarded to each, the rate of commission varying from $\frac{1}{2}$ to 1 per cent., and a similar allowance is made to the State by countries doing a return business. The revenue received during 1910 in respect of commission on the money orders issued was £21,182, as compared with £17,646 for 1901, being an increase of 20 per cent. in the ten years. As compared with the revenue for the Commonwealth from this source, £53,765, it will be seen that the New South Wales business furnishes practically 40 per cent. of the total.

The total amount of commission collected from the public for the interval years quoted above, and the excess of receipts over payments, are recorded as follows:—

Year.	Gross Commission Collected from the Public.	Net Receipts from Other Countries.	Net Commission received by New South Wales.
	£	£	£
1895	14,863	(-) 234	14,629.
1900	16,296	51	16,347
1905	19,313	419	19,732
1906	19,377	438	19,815
1907	20,251	316	20,567
1908	20,839	350	21,189
1909	21,121	316	21,437
1910	20,962	220	21,182

The maximum amount allowable for a single order is £40, but no single order is issued for more than £20 to be paid in the Commonwealth of Australia, in Finland, in various French colonies, Congo, Dahomey, Ivory Coast, Madagascar, New Caledonia, Niger, in Guam, Guinea, Hawaii, Mauretania, Papua, Philippines, Senegal, Turkey in Europe, United States of America, and Upper Senegal. To Russia the maximum is £30, to Angola, British North Borneo, Cape Verde Islands, St. Thomas, and Principe the limit is £10. The rates of commission on money orders payable in the Commonwealth and Papua are respectively 6d. and 9d. for every £5. The charges on those payable in New Zealand and Fiji are:—not exceeding £2, 6d.;

£2 to £5, 1s.; £5 to £7, 1s. 6d.; £7 to £10, 2s.; and in the same proportion up to £40. The commission on orders payable in the United Kingdom, other British Possessions, and foreign countries, is at the rate of 6d. for each pound, but in case of remissions to foreign countries through London, a second commission of 3d. for each £5 or fraction thereof is charged, this commission being added to the amount of the order. In cases where there is no direct exchange through London the business is transacted through the agency of a foreign office, which deducts its commission, ranging from $\frac{1}{4}$ per cent. to 1 per cent., from the amount of the order.

Within Australasia remittances may be made by telegraph to and from money order offices, which are also telegraph or telephone offices, and a charge is made for the telegram of advice, in addition to the ordinary commission.

Postal notes were first issued in New South Wales on the 1st October, 1893. The transactions for interval years were as follow:—

Year.	New South Wales Postal Notes.			Postal Notes of other States of Commonwealth of Australia paid in New South Wales.					
	Paid in New South Wales.	Paid in other States of Commonwealth of Australia.	Total Value.	Issued in—					Total Value.
				Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	
	£	£	£	£	£	£	£	£	£
1895	243,188	16,369	259,557	7,627	3,863	1,431	....	441	13,362
1900	462,087	26,396	488,483	12,207	9,899	2,209	....	1,047	25,362
1905	637,465	85,703	723,168	35,034	28,535	8,752	9,170	5,712	87,203
1906	710,033	98,706	808,759	36,672	34,616	10,092	10,347	6,193	97,920
1907	776,931	117,343	894,274	37,232	38,177	11,893	11,083	6,694	105,129
1908	817,213	113,911	931,124	39,162	41,409	12,337	11,014	7,184	111,106
1909	851,166	148,146	999,312	42,794	45,919	14,645	11,167	7,737	122,262
1910	910,136	131,999	1,092,135	45,725	49,873	14,211	11,321	7,674	129,304

The values shown above represent the full value of postal notes, and of affixed stamps. The total number of notes issued in New South Wales during 1910 was 2,956,853, of which 2,409,663 were paid in the State, in addition to 322,031 notes issued in other States, and paid in New South Wales.

The poundage collected on postal note issues in New South Wales during the same years was as follows:—

Year.	Poundage.	Year.	Poundage.
	£		£
1895	6,317	1907	17,615
1900	11,850	1908	18,116
1905	14,262	1909	19,380
1906	15,932	1910	21,309

SAVINGS BANKS.

The declared objects of savings banks are to encourage individual thrift, and to provide a safe channel of investment for funds, especially of charitable institutions and friendly societies; to foster public confidence and assure soundness in financing, a measure of State control or supervision is regarded as essential. Two institutions exist in New South Wales, the Government Savings Bank of New South Wales—which previous to the federation of the Australian States was worked as the Post Office Savings Bank, and has since been operated in conjunction with the Post Office and its branches—and the Savings Bank of New South Wales. The former bank

is under control of Commissioners appointed, the latter of Trustees nominated by the Government of the State, and it will be seen from the balance-sheets of the institutions that in both cases the bulk of the funds is invested with the Government in various ways.

In both institutions sums over one shilling may be deposited; but, with the exception of the funds of charitable institutions and friendly societies—in which cases interest on the full deposit is allowed—deposits exceeding £500 do not bear interest on such excess in the Government Savings Bank; in the Savings Bank of New South Wales the maximum interest-bearing deposit which can be made by any one individual is £200. During the year ended 31st December, 1910, the Government Savings Bank allowed 3 per cent., and the Savings Bank of New South Wales $3\frac{1}{2}$ per cent. on balances.

The returns show a rapid development since the foundation of the banks, and the large accessions of depositors indicate that the less affluent classes of the community are represented in the books of the banks to a great extent. The following statement shows the number of depositors and amount of deposits at the end of each year since 1860 for the Savings Bank of New South Wales, and since 1880 for the Government Savings Bank, together with the average amount of deposit per depositor :—

Year ended 31st December.	Government Savings Bank.		Savings Bank of New South Wales.		Total.		Average Amount per Depositor.
	Depositors.	Deposits.	Depositors.	Deposits.	Depositors.	Deposits.	
	No.	£	No.	£	No.	£	£ s. d.
1860	}	Not open.	12,027	557,197	12,027	557,197	46 6 7
1870			23,570	936,465	23,570	936,465	39 14 7
1880	24,602	586,496	36,929	1,489,360	61,531	2,075,856	33 14 9
1890	83,312	1,875,905	60,514	2,854,564	143,826	4,730,469	32 17 10
1900	198,014	6,045,622	84,629	4,555,760	282,643	10,901,382	38 11 5
1905	*270,982	*8,883,651	101,383	5,545,367	372,365	14,429,018	38 15 0
1906	283,401	9,322,923	108,649	5,997,609	392,050	15,320,532	39 1 7
1907	305,265	11,128,495	116,663	6,401,662	421,928	17,530,157	41 10 11
1908	314,284	12,118,574	121,745	6,686,508	436,029	18,805,082	43 11 2
1909	334,381	13,303,421	125,870	6,847,154	460,251	20,150,575	43 15 7
1910	368,306	15,190,820	130,352	7,263,104	498,658	22,453,924	45 0 7

* At 30th June, 1906.

At the 31st December 1910, the liabilities of the Government Savings Bank amounted to £15,295,697, of which £15,190,820 represented deposits, and £3,834 balance of profit and loss account; the reserve fund amounted to £90,000, and other liabilities £11,043. The investments made on behalf of the bank, and other assets, including accrued interest, were as follows :—

	£
Government Stocks—	
New South Wales, Funded	10,393,159
Other States	109,945
Treasury Bills—New South Wales	568,580
Deposits at New South Wales Treasury	2,030,943
Debentures—	
Advance Department	798,050
Municipal	353,263
Fixed Deposits at various Banks	293,071
Mortgage Securities, including accrued interest	384,191
Bank Premises	118,250
Sundry accounts due to Bank	1,090
Advance Department	6,061
Commercial Banking Co. of Sydney, Ltd.	68,507
Cash at Branches, Agencies and in transit	165,447
Balances due from other Saving Banks	5,140
Total	£15,295,697

It is to be noted that the Commissioners are obliged, in terms of the Government Savings Bank Act, 1906, to retain at least 15 per cent. of the assets of the bank on call or at short notice.

The following statement shows the classification of depositors' balances at the Government Savings Bank for the year 1910 :—

Classification.	Depositors.	Deposits.	Average per Depositor.
	No.	£	£ s. d.
£100 and under ...	324,268	4,111,463	12 12 7
Over £100 to £200 ...	20,938	2,877,880	137 8 11
„ £200 to £300 ...	9,490	2,281,901	240 9 1
„ £300 to £400 ...	5,322	1,819,800	341 5 11
„ £400 to £500 ...	3,519	1,571,796	446 13 2
„ £500 ...	4,769	2,327,001	529 17 7
Total ...	368,306	15,190,820	41 4 11

* Includes £979 in transit.

During 1910 the home-savings bank system was inaugurated, 5,631 boxes being issued.

The Savings Bank of New South Wales was originally administered by nine trustees; under the Savings Bank Act, 1902, and its amendment, the maximum is eighteen, and the trustees are authorised to appoint a managing trustee, who, if not already a trustee, becomes so *ex-officio*. The number of trustees at the end of 1910 was thirteen, exclusive of the managing trustee. The funds of this institution are applicable to investments of a general nature, such as mortgages, Government and municipal securities, and deposits with banks of issue and the Treasury. The amount invested under each head, including interest accrued, at the close of 1910, was as follows :—

Investment.	Amount.
	£
Mortgages ...	1,049,945
New South Wales Government Stock ...	3,217,632
„ Treasury Bills ...	354,395
Municipal Debentures ...	1,272,124
Fixed Deposits in various Banks ...	1,320,138
“ Working Account ” (Bank of New South Wales) ...	77,725
Deposit with Colonial Treasurer ...	254,089
Land and Banking-houses ...	85,849
Cash received after 31st December, 1910 ...	37,523
Total ...	£ 7,669,420

The reserve fund, depreciation account, and profit and loss account, on the 31st December, 1910, amounted to £394,936. The classification of the deposits at the Savings Bank of New South Wales on the 1st January, 1911, was as follows :—

Classification.	Depositors.	Deposits.	Average per Depositor.
	No.	£	£ s. d.
£20 and under ...	71,892	290,581	4 0 10
Over £20 and under £50 ...	16,930	545,673	32 4 7
£50 and under £100 ...	12,209	859,124	70 7 4
£100 „ £200 ...	13,581	1,916,201	141 1 11
£200 „ £300 ...	14,896	3,160,959	212 4 0
£300 and upwards ...	844	490,566	581 4 9
Total ...	130,352	7,263,104	55 14 5

Connected with the Savings Bank of New South Wales are six penny-savings banks established in various districts. The aggregate deposits at December, 1910, were £1,132, and this amount is included in the figures previously shown concerning the bank's operations.

Similarly, deposits in the school savings banks of the State are transferred to the Government Savings Bank when they amount to £1.

A comparison of the respective positions of the two institutions at December, 1910, may be obtained from the following statement:—

	Branches and Agencies.	Accounts open.	Deposits.	Withdrawals.	Balance of Depositors' Accounts.	Manage- ment Expenses.
Savings Bank New South Wales	No. 26	130,352	£ 3,761,667	£ 3,568,671	£ 7,263,104	£ 27,144
Government Savings Bank	636	368,306	11,581,894	10,089,862	15,190,820	68,060

Taking 100 as representing the figures of the Savings Bank of New South Wales, the balance of depositors' accounts in the Government Savings Bank represents 209·2, while management expenses represents 250·5, but on the other hand, the deposits, &c., are much greater, viz., as against 100 in each case for the Savings Bank of New South Wales, the Government Savings Bank shows as follows:—

Accounts open...	...	...	...	...	...	282·5
Deposits ...	...	...	...	...	...	307·9
Withdrawals ...	...	...	...	...	...	282·7
Balance of Depositors' Accounts	...	...	...	...	...	209·2
Management expenses	...	...	...	...	...	250·5

The following table shows the number of depositors in the savings banks the total amount standing to their credit, the average amount per depositor in New South Wales, and in comparison, similar figures for other Australian States:—

State.	Depositors.	Amount of Deposits in all Savings Banks.	Average Amount per Depositor.
	No.	£	£ s. d.
New South Wales	498,658	22,453,924	45 0 7
Victoria	560,515	15,417,888	27 10 1
Queensland	114,720	5,622,986	49 0 4
South Australia	201,275	6,791,320	33 14 10
Western Australia...	86,166	3,481,764	40 8 2
Tasmania	60,646	1,652,966	27 5 1

Of the aggregate amount, exceeding £55,000,000, deposited in the savings banks of Australia, quite 70 per cent. is reinvested by the controlling bodies in Government and municipal securities. An interstate reciprocity agreement permits of the prompt transfer of depositors' balances between the various States, as required by the depositor.

COMMONWEALTH SAVINGS BANKS.

During 1911 the Federal Government passed the Commonwealth Bank Act, under the provisions of which the establishment of savings banks throughout the Commonwealth is authorised.

TRADING BANKS.

Banking institutions transacting ordinary banking business within the State number sixteen, of which four have their head offices in Sydney, four in Melbourne, two in Brisbane, one in Wellington, N.Z., four in London, and

one in Paris. Of the four local banks, three have branches outside the State, but the fourth confines its operations to New South Wales. Two of the local banks—the Bank of New South Wales and the City Bank of Sydney—carry on business under the provisions of special Acts of Incorporation, and in each case the reserve liability attaching to the shares is equivalent to the amount originally subscribed; the Commercial Banking Company of Sydney (Limited) and the Australian Bank of Commerce (Limited) are registered as limited companies under the Companies Act, 1906, the latter bank being registered in September, 1909, commencing operations on the 1st January, 1910; previously it was registered and operated as the Australian Joint Stock Bank (Limited). Including branches and head offices, New South Wales is served by 624 banking establishments.

Institutions which transact the business of banking are required under the existing law, contained in the Banks and Bank Holidays Act, 1898, and its subsequent minor amendments, to furnish, in a prescribed form, quarterly statements of their assets and liabilities, from which statements and from the periodical balance-sheets, the information here collated has been prepared. The returns furnished comply with the requirements of the existing law, but are unsuited to the modern methods of transacting banking business, and cannot be accepted as disclosing fairly the stability or otherwise of the institutions by which they are issued.

INSTITUTIONS AND THEIR CAPITAL.

The paid-up capital of the sixteen banks doing business in New South Wales is stated as £24,193,550, of which £2,281,754 carry a preferential claim on the profits of the companies.

In the following table is a statement of the ordinary and preferential capital of each bank at the date shown, with the amount of the reserve fund of the institution. In the case of some of the companies which were reconstructed, certain reserves, of which no account has been taken in the table, are held in suspense pending realisation of assets:—

Bank.	Offices, including Head Office, in New South Wales.	Date of Balance- sheet.	Capital Paid up.			Reserve Fund.
			Ordinary.	Preferen- tial.	Total.	
HEAD OFFICE, SYDNEY.						
Bank of New South Wales	No. 161	Mar., 1911	£ 2,913,820	£	£ 2,913,820	£ 1,896,735
Commercial Banking Co. of Sydney (Limited)	160	June, 1911	1,500,000	.....	1,500,000	1,420,000
Australian Bank of Commerce (Limited)	13	June, 1911	1,180,812	.....	1,180,812	Nil.
City Bank of Sydney	38	June, 1911	400,000	.....	400,000	16,500
HEAD OFFICE, MELBOURNE.						
Commercial Bank of Australia (Limited)	17	June, 1911	1,260,334	.....	1,260,334	Nil.
Royal Bank of Australia (Limited)	1	Mar., 1911	300,000	.....	300,000	150,000
National Bank of Australasia (Limited)	8	Mar., 1911	1,192,440	305,780	1,498,220	265,000
Colonial Bank of Australasia (Limited)	1	Mar., 1911	135,236	304,044	439,280	160,000
HEAD OFFICE, BRISBANE.						
Queensland National Bank (Limited)	1	June, 1911	413,494	.....	413,494	94,000
Bank of North Queensland (Limited)	6	June, 1911	100,000	.....	100,000	20,000
HEAD OFFICE, WELLINGTON.						
Bank of New Zealand	1	Mar., 1911	500,000	1,500,000	2,000,000	1,000,000
HEAD OFFICE, LONDON.						
Bank of Australasia	46	Oct., 1910	1,600,000	.....	1,600,000	1,810,000
Union Bank of Australia (Limited)	36	Feb., 1911	1,500,000	.....	1,500,000	1,350,000
London Bank of Australia (Limited)	26	Dec., 1910	376,223	171,930	548,153	80,000
English, Scottish, and Australian Bank (Limited)	49	June, 1910	539,437	.....	539,437	200,000
HEAD OFFICE, PARIS.						
Comptoir National d'Escompte de Paris	1	Dec., 1910	8,000,000	.....	8,000,000	1,447,476
Total	624	....	21,911,796	2,281,754	24,193,550	9,909,711

In addition to the paid-up capital shown above, an amount of £105,706 had still to be paid in respect of calls made on the shareholders of four banks—Bank of New South Wales, £86,180 ; Australian Bank of Commerce (Limited), £17,532 ; Queensland National Bank (Limited), £1,754 ; and London Bank of Australia, £240.

The following table shows the amount of the paid-up capital and reserve funds of all banks operating in the State, at intervals since 1890:—

Year.	Banks.	Capital Paid up.		Total.	Reserve Funds.
		Ordinary.	Preferential.		
	No.	£	£	£	£
1890	17	.....	.....	13,929,326	7,832,047
1895	13	14,610,177	5,094,780	19,704,957	4,175,912
1900	13	12,212,120	4,594,940	16,807,060	4,529,109
1905	13	9,870,871	4,095,060	13,965,931	5,474,199
1906	13	10,084,856	4,095,060	14,179,916	5,818,412
1907	14	16,615,104	4,095,060	20,710,164	7,498,130
1908	14	17,672,047	1,977,710	19,649,757	7,681,208
1909	15	21,084,062	1,977,710	23,061,772	9,017,659
1910	16	21,911,796	2,281,754	24,193,550	9,909,711

LIABILITIES AND ASSETS OF BANKS.

The aggregate liabilities to the public of the banks enumerated, as at the given dates, were £242,743,563, against which there were assets representing £278,692,895. The following table gives the liability for each institution, notes in circulation and deposits being separated from other liabilities. In some cases small items which should be classed with "other liabilities" are included with deposits, as they cannot be distinguished in the balance-sheets, and in the case of the Commercial Bank of Australia (Limited), the accounts of the Assets Trust of the old bank have been excluded:—

LIABILITIES TO THE PUBLIC.

Bank.	Notes in Circulation.	Deposits.	Other Liabilities.	Total.
	£	£	£	£
Bank of New South Wales.. .. .	1,218,534	33,265,497	6,352,139	40,836,170
Commercial Banking Co. of Sydney (Limited).. ..	317,521	20,090,168	1,053,478	21,461,167
Australian Bank of Commerce (Limited)	63,673	4,378,716	299,945	4,742,314
City Bank of Sydney	68,813	1,637,602	Nil.	1,706,415
Colonial Bank of Australasia (Limited)	128,851	3,796,311	356,584	4,261,746
Commercial Bank of Australia (Limited)	163,204	6,372,741	1,981,343	8,517,288
National Bank of Australasia (Limited).. ..	340,101	10,554,726	1,593,836	12,493,663
Royal Bank of Australia (Limited)	18,917	1,934,590	771,258	2,724,765
Queensland National Bank (Limited)	Nil.	8,688,323	424,070	9,112,393
Bank of North Queensland (Limited)	Nil.	810,892	29,180	840,072
Bank of New Zealand	977,216	17,886,746	1,459,421	20,303,413
Bank of Australasia	564,886	16,806,476	2,823,365	20,284,727
Union Bank of Australia (Limited)	543,925	22,817,958	2,042,520	25,404,403
London Bank of Australia (Limited)	171,873	4,909,921	833,075	5,919,869
English, Scottish, and Australian Bank (Limited) ..	81,275	7,319,586	484,110	7,887,971
Comptoir National d'Escompte de Paris	Nil.	48,119,592	8,127,195	56,246,787
Total	£ 4,661,799	209,479,845	28,601,919	242,743,563

The assets which each bank shows against its liabilities to shareholders and the public are given in the following table:—

Bank.	Coin and Bullion and Cash Balances.	Australian Notes.	Advances.	Other Assets.	Total.
	£	£	£	£	£
Bank of New South Wales...	8,639,804	1,448,528	22,932,292	12,888,216	45,908,840
Commercial Banking Co. of Sydney (Limited).	5,314,798	411,412	12,485,627	6,324,990	24,536,827
Australian Bank of Commerce (Limited).	636,062	208,741	4,059,942	1,036,885	5,941,630
City Bank of Sydney	479,562	46,837	1,343,013	265,839	2,135,251
Colonial Bank of Australasia (Limited) ..	757,063	.....	2,861,502	1,260,808	4,879,373
Commercial Bank of Australia (Limited).	1,812,240	.....	5,697,276	2,203,423	9,812,939
National Bank of Australasia (Limited) ..	2,377,456	.....	9,672,564	2,269,161	14,319,181
Royal Bank of Australia (Limited)	567,548	.....	1,670,738	961,837	3,190,123
Queensland National Bank (Limited)	1,907,711	340,578	5,697,899	1,710,004	9,655,887
Bank of North Queensland (Limited)	169,403	48,047	620,108	130,356	967,914
Bank of New Zealand	3,370,102	Nil.	9,049,751	10,982,965	23,402,818
Bank of Anstralsia ..	4,830,846	Nil.	14,755,338	4,252,268	29,838,452
Union Bank of Australia (Limited)	5,003,718	Nil.	16,183,038	7,214,836	28,401,592
London Bank of Australia (Limited)	1,008,421	Nil.	3,943,355	1,656,133	6,608,409
English, Scottish, and Australian Bank (Limited).	1,220,488	Nil.	5,361,090	2,131,746	8,718,324
Comptoir National d'Escompte de Paris.	3,320,393	Nil.	61,484,062	1,575,880	66,380,835
Total	£ 41,415,615	2,504,138	177,817,795	56,955,347	278,692,895

It will be noticed that in the cases of the four banks with head quarters at Melbourne, the values of Australian notes held has not been distinguished from the value of coin, &c. In all cases, the assets and liabilities quoted represent the total of the various banks, wherever situated, not merely those in New South Wales, which are treated subsequently. The difference between the assets and liabilities shown in the table amounts to £35,949,332, and consists of the paid-up capital and reserves (£34,649,559), and dividends paid (£1,299,773).

LOCAL BUSINESS OF BANKS.

To render comparable the figures of the various banks, necessary adjustments have been made by excluding from the assets of two of the banks the balances due, by branches and agencies outside New South Wales, to the head office in Sydney. The following table shows the assets and liabilities and the surplus assets of the banks, at intervals from 1860 onwards. These figures represent the averages for the quarter ended 31st December in each year:—

Year.	Banks.	Assets within the State.	Liabilities within the State.	Surplus assets.
	No.	£	£	£
1860	...	8,053,463	6,480,642	1,572,821
1870	...	9,863,071	7,198,680	2,664,391
1880	11	21,658,317	19,485,862	2,172,455
1890	17	52,436,977	37,248,937	15,188,040
1900	13	43,036,427	33,969,731	9,066,696
1905	13	43,694,137	38,860,062	4,834,075
1906	13	44,457,957	41,416,737	3,041,220
1907	14	49,345,915	44,937,466	4,408,449
1908	14	51,428,158	46,140,027	5,288,131
1909	15	51,914,494	48,330,893	3,583,601
1910	16	58,276,278	54,667,088	3,609,190

In New South Wales the assets of the banks reached their highest point in 1891 and 1892; in the latter year the excess over liabilities was shown as £16,146,513. From this date the excess of assets was reduced in 1901 to £8,359,727, and in June, 1906, to £3,041,220, since which date there has been some fluctuation to a maximum slightly exceeding 5½ million pounds in 1908.

The classification, both of assets and liabilities, required by the schedule to the Act is too general to admit of detailed analysis; thus under the term "deposits not bearing interest," most of the banks are accustomed to return interest accrued and all debts due by them other than deposits at interest, notes, and bills.

Coin and bullion together represent only 23·6 per cent. of the average assets of the banks within New South Wales, and no dissection is made of the various classes of advances, which represent in the aggregate 70·1 per cent. of the total assets which the banks hold against their liabilities. The tables show the preponderance of deposits among the liabilities, and of advances among the assets, and it may perhaps assist to a fuller realisation of the extent to which the banking business of the State depends on these two factors, to emphasise the fact that deposits represent 94·9 per cent. of liabilities (exclusive of shareholders), while advances are 70·1 per cent. of assets, as quoted above. These items call for more extensive discussion in the returns.

The assets show coin and bullion separately, but 92·7 per cent. of the other assets are placed together under the term "notes and bills discounted, and all other debts due to the bank." The following statement of liabilities refers to local business only:—

AVERAGE LIABILITIES WITHIN NEW SOUTH WALES.
(Exclusive of Liabilities to Shareholders.)

Year.	Notes.	Deposits.			Other Liabilities.	Total Liabilities.
		At Interest.	Without Interest.	Total Deposits.		
	£	£	£	£	£	£
1881	1,390,376	11,869,979	7,719,236	19,589,215	446,535	21,426,126
1885	1,714,095	18,387,705	8,819,979	27,207,684	923,843	29,845,622
1890	1,503,404	25,114,127	9,932,310	35,046,437	278,792	36,828,633
1895	1,223,864	20,406,822	10,222,437	30,629,259	183,929	32,037,052
1900	1,447,641	20,009,081	12,224,510	32,233,591	288,499	33,969,731
1905	1,430,335	22,211,627	14,859,427	37,071,054	358,673	38,860,062
1906	1,564,670	22,585,802	16,834,690	39,420,492	431,575	41,416,737
1907	1,756,696	24,034,857	18,729,709	42,764,566	416,204	44,937,466
1908	1,759,020	25,958,298	17,951,589	43,909,887	471,120	46,140,027
1909	1,758,913	25,926,547	20,198,450	46,124,997	446,983	48,330,893
1910	2,243,128	27,824,972	24,068,552	51,893,524	530,436	54,667,088

Against these liabilities, in which the steady growth of deposits is the outstanding feature, the average assets were as follows:—

Year.	Coin and Bullion.	Advances.	Landed Property.	Other.	Total.
	£	£	£	£	£
1881	3,674,982	19,038,386	585,224	3,183,395	26,481,987
1885	4,233,109	30,556,628	958,349	2,067,490	37,815,576
1890	5,659,057	41,623,049	1,601,589	2,796,100	51,679,795
1895	7,516,278	35,707,153	1,919,017	479,881	45,622,329
1900	6,126,126	31,385,388	1,874,099	650,814	43,036,427
1905	8,823,260	32,447,659	1,799,231	623,987	43,694,137
1906	7,507,363	34,415,596	1,819,417	715,581	44,457,957
1907	9,552,085	37,244,216	1,746,940	802,674	49,345,915
1908	9,600,866	39,213,472	1,793,518	820,302	51,428,158
1909	10,717,751	38,485,738	1,814,351	896,654	51,914,494
1910	13,724,285	40,854,690	1,822,997	1,874,306	58,276,278

Under the heading of "other assets" are grouped notes and bills of banks, including Queensland Government Treasury notes, balances due from other banks, and for 1910, Australian notes. In view of the steady increase since 1905 of the assets so grouped, some interest may attach to a detail statement of such items for the past six years, viz. :—

Year.	Liabilities.	Other Assets.		
	Balances due to other Banks.	Notes and Bills of other Banks.	Balances due from other Banks.	Australian Notes.
	£	£	£	£
1905	140,118	326,750	297,237	.....
1906	117,629	335,979	379,602	.....
1907	133,186	359,038	443,636	.....
1908	176,122	388,925	431,377	.....
1909	131,067	374,522	522,132	.....
1910	160,237	906,857	675,702	291,747

From preceding tables it is apparent that the deposits in banks are increasing very rapidly, while the advances made, though larger from year to year, have not increased in the same proportion; thus, in 1881 the excess of deposits over advances was little more than half a million pounds; in 1890 and onwards till 1905, advances were considerably in excess of deposits; since 1905 deposits have increased 40 per cent. and advances only 26 per cent. Considerable sums of money of Australian origin are held on deposit in London, and these amounts form a source of profit to the institutions naturally, though they cannot be used for investment locally.

METALLIC RESERVES OF BANKS.

The proportion of metallic reserves which banking institutions should keep constantly in stock is not fixed by any enactment. Compared with the total liabilities, and with deposits at call and note circulation, the amount of coin and bullion has varied very considerably from year to year, as indicated below :—

Year.	Coin.	Bullion.	Total.	Proportion of Metallic Reserves—	
				To Total Liabilities.	To Deposits at Call and Note Circulation.
	£	£	£	per cent.	per cent.
1860	1,578,424	90,052	1,668,476	25·7	*
1870	1,291,177	86,744	1,377,921	19·1	*
1880	3,488,554	75,008	3,563,562	18·3	49·5
1890	5,619,111	87,659	5,706,770	15·3	49·1
1900	5,933,076	193,050	6,126,126	18·0	44·8
1901	5,814,180	171,545	5,985,725	17·1	41·7
1902	6,329,551	223,172	6,552,723	18·8	46·7
1903	5,824,539	226,307	6,050,846	17·7	43·3
1904	6,175,911	276,446	6,452,357	18·5	46·1
1905	8,624,083	199,177	8,823,260	22·7	54·2
1906	7,247,347	260,016	7,507,363	18·1	40·8
1907	9,342,631	209,454	9,552,085	21·3	46·6
1908	9,350,942	249,924	9,600,866	20·8	48·7
1909	10,521,262	196,489	10,717,751	22·2	48·8
1910	13,527,019	197,266	13,724,285	25·1	52·2

* Amount of deposits at call unobtainable.

In the foregoing table the figures represent the weekly average amounts during the quarter ended 31st December in each year; the Comptoir National d'Escompte de Paris is included since 1907, and the Royal Bank of Australia, Ltd., and the Colonial Bank of Australasia, Ltd., in 1910.

ADVANCES BY BANKS.

Under the head of advances are included bills and promissory notes discounted, cash credits, and miscellaneous debts. The bulk of the advances are secured by the mortgage of real estate or by the depositing of deeds over which the lending institution acquires a lien; but the extent of the discounting of trade bills is not apparent. The most interesting summary that can be made is that which the following table supplies:—

Year.	Advances.	Ratio of Advances to Deposits.	Advances per cent. of Total Assets.	Amount of Advances per Inhabitant.
	£	per cent.		£ s. d.
1860	5,780,700	111·9	71·8	16 17 6
1870	7,814,116	127·9	79·2	15 18 11
1880	17,210,205	96·2	79·5	23 12 4
1890	43,009,559	121·3	84·7	39 0 8
1900	34,385,388	101·2	79·9	25 4 0
1905	32,447,659	87·5	74·3	22 2 1
1906	34,415,596	87·3	77·4	22 18 7
1907	37,244,216	87·1	75·5	24 4 5
1908	39,213,472	89·3	76·2	25 0 6
1909	38,485,738	83·4	74·1	24 3 6
1910	40,854,690	78·7	70·1	25 3 8

DEPOSITS IN BANKS.

The total amount of money deposited with the sixteen banks operating in New South Wales during 1910 was, approximately, £209,479,845, of which sum £51,893,524 were received locally. The excess of the total over local deposits was employed in the various countries to which the banks' business extended, some, of course, being used in New South Wales; but, from the very nature of the transactions of the banks, it is possible only to surmise the amount so used. Dealing only with local deposits, the following statement shows the average amount of money deposited at various periods commencing with 1860; the distinction between interest-bearing deposits and those at call was first made in 1875:—

Year.	Deposits bearing interest.	Deposits not bearing interest.	Total Deposits.	Proportion of Deposits not bearing interest to Total Deposits.	Proportion of Deposits to Liability (to Public).
	£	£	£	per cent.	per cent.
1860	.....	.....	5,164,011	...	79·7
1870	.....	.....	6,107,999	...	84·8
1880	11,948,383	5,934,641	17,883,024	33·2	91·8
1890	25,395,600	10,064,518	35,460,118	28·4	95·2
1900	20,009,081	12,224,510	32,233,591	37·9	94·9
1905	22,211,627	14,859,427	37,071,054	40·1	95·4
1906	22,585,802	16,834,690	39,420,492	42·7	95·2
1907	24,034,857	18,729,709	42,764,566	43·8	95·2
1908	25,958,298	17,951,589	43,909,887	40·9	95·2
1909	25,926,547	20,198,450	46,124,997	43·8	95·4
1910	27,824,972	24,068,552	51,893,524	46·4	94·9

The deposits reached their highest level in December, 1910, when there was entrusted to the banks an average total of £51,893,524. In 1891 the deposits amounted to £35,659,690, but in the subsequent ten years fully five millions were withdrawn, the reduction being entirely in interest-bearing deposits. Since 1894 there has been a tendency to restrict fixed deposits, and to extend the operations in current accounts, which have increased by over eight millions during the interval; the total deposits have increased to nearly £52,000,000, while fixed deposits now show an increase on the high-water mark of 1890.

INTEREST, DISCOUNT, AND EXCHANGE RATES.

The interest offered for fixed deposits is 3 per cent. for sums deposited for twelve months; for six months' deposits the interest allowed is at the rate of $1\frac{1}{2}$ per cent., occasionally rising to 2 per cent. For periods of two years the interest rate rises to $3\frac{1}{2}$ per cent. The practice of allowing interest on money fixed for less than six months was discontinued in May, 1894. The rates quoted are low, and the strength of deposits shows that money equal to requirements is freely offered. The following is a statement of the average rates for twelve months' deposits from 1860 onwards. The figures do not include interest payable, on deferred deposits, by reconstructed banks:—

Year.	Bank Interest on Deposits for twelve months.	Year.	Bank Interest on Deposits for twelve months.
	per cent.		per cent.
1860	5	1906	3 to $3\frac{1}{2}$
1870	5	1907	3
1880	5	1908	3
1890	$4\frac{1}{2}$	1909	3
1900	3	1910	3
1905	3 to $3\frac{1}{2}$		

Under normal conditions the annual rate of interest paid on fixed deposits is uniform for all banks, and discount and overdraft rates should move down with the interest rates paid to depositors; it is evident, from a consideration of the profit and loss accounts of the various institutions, that the business of the banks is in a healthy condition.

The rates for overdrafts and discounts during interval years from 1890 to 1910 were as follow:—

Year.	Overdraft Rates.	Discount Rates.	
		Bills at 3 months.	Bills over 3 months.
	per cent.	per cent.	per cent.
1890	9	7	8
1895	7 to 8	6 to $6\frac{1}{2}$	7
1900	6 „ 7	5 „ $5\frac{1}{2}$	$5\frac{1}{2}$ to $6\frac{1}{2}$
1905	6 „ $7\frac{1}{2}$	$5\frac{1}{2}$ „ 6	6 „ $6\frac{1}{2}$
1906	6 „ $7\frac{1}{2}$	$5\frac{1}{2}$ „ 6	6 „ $6\frac{1}{2}$
1907	6 „ 8	5 „ 6	6 „ 7
1908	6 „ 8	5 „ 6	6 „ 7
1909	6 „ $7\frac{1}{2}$	5 „ 6	6 „ 7
1910	6 „ $7\frac{1}{2}$	5 „ 6	6 „ 7

The bank exchange rate on London, at sixty days' sight, averages about 1 per cent., but is subject to some fluctuation. In May, 1893, it was $3\frac{1}{2}$ per cent., the banks at that date requiring all their available assets. The rates from 1890 to 1910 were:—

Year.	Exchange rate on London at 60 days' sight.	
	Buying.	Selling.
	per cent.	per cent.
1890	99 $\frac{3}{4}$ to 100	100 $\frac{3}{4}$ to 101 $\frac{3}{4}$
1895	99 $\frac{1}{2}$ „ 99 $\frac{3}{4}$	100 $\frac{3}{4}$ „ 100 $\frac{3}{4}$
1900	98 $\frac{3}{4}$ „ 99 $\frac{1}{2}$	100 $\frac{1}{4}$ „ 100 $\frac{3}{4}$
1905	99 $\frac{1}{4}$ „ 99 $\frac{1}{2}$	100 $\frac{1}{4}$ „ 100 $\frac{3}{4}$
1906	99 $\frac{1}{4}$ „ 99 $\frac{1}{2}$	100 $\frac{1}{4}$ „ 100 $\frac{3}{4}$
1907	98 $\frac{3}{4}$ „ 99 $\frac{1}{4}$	99 $\frac{3}{4}$ „ 100
1908	98 $\frac{1}{4}$ „ 99 $\frac{3}{4}$	99 $\frac{3}{4}$ „ 100 $\frac{1}{4}$
1909	98 $\frac{3}{4}$ „ 99 $\frac{1}{4}$	99 $\frac{3}{4}$ „ 100 $\frac{1}{4}$
1910	98 $\frac{3}{4}$ „ 99	99 $\frac{3}{4}$ „ 99 $\frac{3}{4}$

PROFITS OF BANKS.

The results of the transactions of each bank for the latest period for which information is available, are given in the following table. With the exception of the Bank of New Zealand, the English, Scottish, and Australian Bank (Limited), the London Bank of Australia (Limited), and the Comptoir National d'Escompte de Paris, for which the figures relate to twelve months' operations, the amounts given cover a period of six months. The dates of the balance-sheets are as shown previously:—

Bank.	Balance brought forward.	Net Profits for half-year.	Total.	Half-yearly Dividend.		Amount transferred to Reserve Fund, &c.	Amount carried forward.
				Rate per cent. per annum.	Amount.		
	£	£	£		£	£	£
Bank of New South Wales ..	57,342	204,373	261,715	10 5	146,337	53,265	62,113
Commercial Banking Company of Sydney (Limited) ..	37,565	118,095	155,660	10	75,000	40,000	40,660
Australian Bank of Commerce (Limited) ..	3,547	14,957	18,504	2 $\frac{1}{2}$	14,550	Nil.	3,954
City Bank of Sydney ..	2,280	10,047	12,326	4	8,000	2,000	2,326
Colonial Bank of Australasia (Limited) ..	3,637	24,708	28,345	7	15,375	11,000	1,970
Commercial Bank of Australia (Limited) ..	6,512	58,805	65,317	3	31,760	30,000	3,557
National Bank of Australasia (Limited) ..	8,483	73,815	82,298	6	44,947	27,000	10,351
Royal Bank of Australia (Limited) ..	3,463	21,895	25,358	7	10,500	11,366	3,492
Queensland National Bank (Ltd.) ..	Nil.	46,275	46,275	..	30,000	16,275	..
Bank of North Queensland (Ltd.) ..	2,991	4,851	7,842	5	2,500	4,171	1,171
Bank of New Zealand ..	64,134	235,271	299,405	Pref., 10 Ord., 6 Bonus, 3	65,000	200,000	34,405
Bank of Australasia ..	15,194	198,531	213,725	Div'nd. 12 Bonus, 2	128,000	70,000	15,725
Union Bank of Australia (Limited) ..	41,382	135,807	177,189	Div'nd. 10 Bonus, 2	105,000	30,000	42,189
London Bank of Australia (Ltd.) ..	21,680	68,708	90,388	Pref., 7 Ord., 5	50,437	37,579	22,372
English, Scottish, and Australian Bank (Limited) ..	30,135	73,877	104,012	6	32,366	40,885	30,761
Comptoir National d'Escompte de Paris ..	54,714	631,358	686,072	7	160,000	52,946	73,126

BANKS' EXCHANGE SETTLEMENT.

The Banks' Exchange Settlement Office, which was established in Sydney on the 18th January, 1894, is not a clearing-house in the accepted meaning of the term, since the exchanges are effected daily at the banks by clerks of each institution; the results of the daily operations being notified to the secretary of the Banks' Exchange Settlement, who establishes the daily credit of each bank with the "pool," which is under the control of three trustees, and

consists of £700,000 in gold; this money is deposited in the vaults of three of the banks, and may not be circulated or disturbed. The contributions to the "pool" are according to the volume of the operations of each bank. The secretary notifies each bank daily of the amount of its credit with the "pool," and it is not permissible for any balance to remain below 25 per cent. of the fixed contribution. In the event of its credit reaching this margin, the bank is required to make up its deficiency with gold; this payment, however, is not made to the "pool," but to such other banks as may happen to have at their credit with the "pool" a larger sum than is required by the agreement. This arrangement retains intact the £700,000 comprising the "pool."

The growth in the volume of exchanges is shown in the following table:—

Year.	Amount of Exchanges.	Year.	Amount of Exchanges.
	£		£
1895	108,509,860	1906	220,860,512
1900	144,080,314	1907	234,169,822
1901	167,676,707	1908	227,736,243
1902	178,637,708	1909	240,645,737
1903	180,961,406	1910	274,343,666
1904	177,797,335	1911	304,488,435
1905	189,826,381		

The transactions of this office have grown steadily since its establishment; the large annual increases during the last six years indicate a remarkable activity in trade due to a succession of good seasons, and to the consequent general prosperity throughout the State.

INCORPORATED COMPANIES.

The legislation relating to incorporated companies in New South Wales is contained principally in the Companies Act 1899, consolidating earlier statutes, the amending Acts of 1900, 1906, and 1907, and the Companies (Death Duties) Act, 1901. These enactments follow the general provisions of Imperial Acts relating to companies up to 1877, with deviations embodying the results of local experience. With the object of preparing the way for co-ordination of the laws which govern the formation, management, and winding-up of joint stock companies in different parts of the British Empire, and so securing a practical basis for uniformity of mercantile law, in this respect the question of company law was made a subject for consideration at an Imperial Conference held in London in 1907, at which date the Statutes then operative numbered seventeen for the United Kingdom, seventy-five for Canada (embodying nine different systems of company law), forty-six for Australia (embodying six different systems), twenty-one for South Africa (embodying five systems), and two statutes each for India and New Zealand.

A later analysis of company law for the Imperial Conference of 1911 showed that as the result of fresh or of consolidating enactments the laws affecting companies was contained in one enactment for the United Kingdom; in sixty-seven Acts and ordinances, comprising eleven different systems, for Canada; in forty-three statutes for Australia, comprising six different systems; in South Africa the number of statutes was reduced to sixteen; in India and New Zealand the position remained the same as in the earlier year. At the 1911 Conference a resolution was carried unanimously that it is in the best interests of the Empire that there should be more uniformity throughout the centres and dependencies in the law of copyrights, patents, trade-marks, and companies.

Under the Companies Act, 1899, of New South Wales, the liability of members of limited companies may be limited either by shares, or by

guarantee; unlimited companies are those in which no limitation is placed on the liability of members. A special feature of the Act is the embodiment of provisions for the formation and registration of companies in connection with the mining industry under the "No-Liability System," as previously defined in the No-Liability Mining Companies Act, 1896. Societies worked only for the mutual benefit and advantage of the subscribing members are registered under the Building and Co-operative Societies Act, 1901. From the date of passing of the Companies Act, 1899, the formation of a company, association, or partnership of more than ten persons in a banking business, or of twenty in other businesses trading for profit is prohibited, except such company, association, or partnership be registered under the Act, or formed or incorporated in pursuance of some other enactment, or of a royal charter or letters patent. Special provision is made for associations formed for the purpose of promoting commerce, art, science, religion, charity, or other useful object, rather than of making profit for the members. Companies existing at the passing of the Act, and having a minimum of seven members, may register under the Act, particular provision existing to enable joint stock companies, having a permanent paid-up or nominal capital of fixed amount divided into shares of fixed amount, or held and transferable as stock, and having for members only holders of such shares or stock, to register as companies with liability limited by shares.

The trend of recent legislation in England has been to render available information concerning joint stock companies, on the ground that publicity is the best safeguard devisable for the protection of creditors and of investors, and that, moreover, the privilege of limited liability confers a right to demand publicity and disclosure of material facts, which can make it possible for creditors or investors to form a sound opinion. In New South Wales the particulars required to be filed in regard to companies registered include the following:—Address of the registered office; memorandum and articles of association; and in the case of companies not having a capital divided into shares, a list of directors; particulars are also required as to contracts, capital, nominal, subscribed, and paid-up, with a list of shareholders; copies of special or extraordinary resolutions, and of winding-up orders have also to be filed. In the United Kingdom, India, British Columbia, the Transvaal, and in Victoria, an annual balance-sheet is filed; and in the United Kingdom and in other parts of the British Empire, *e.g.*, in New Zealand, details are required regarding the prospectus, or the statement in lieu of the prospectus, and allotments, mortgages, charges, or debentures.

In regard to limited companies in New South Wales, the following particulars are recorded for the past ten years:—

COMPANIES—*Limited Companies.*

Year.	New Companies registered.	Nominal Capital.	Members (associations not for profit. Sec. 62).	Summary and List of Members received.	Increase of Capital authorised.	Amount of Aggregate Increase.	Statements, &c., that Companies are defunct.	Winding-up.	Liquidators' Return.	Total Fees received.
		£				£				£
1901	88	1,841,541	1,300	568	16	196,700	7	37	11	1,189
1902	102	4,156,707	1,610	592	12	547,250	10	42	27	1,560
1903	154	4,923,105	515	598	13	125,100	32	56	23	2,099
1904	127	2,753,777	1,557	648	12	1,210,600	1	64	44	1,567
1905	170	3,185,390	2,337	730	10	340,300	22	53	36	1,901
1906	189	4,528,900	1,800	801	10	149,500	67	67	33	2,239
1907	189	3,777,307	4,100	903	17	1,760,795	34	62	26	2,302
1908	196	3,850,175	3,250	973	29	1,360,500	26	63	24	2,487
1909	251	6,791,157	915	1,042	20	548,700	22	68	40	3,004
1910	329	6,975,691	590	1,218	41	1,234,055	29	73	33	4,107

Of mining companies registered as with "no-liability," the following particulars are recorded in the same period :—

Year.	New Companies.	Nominal Capital.	Balance-sheets filed.	Increase of Capital.	Amount of Increase.	State-ments, &c., that Companies are defunct.	Wind-ing-up.	Liqui-dators Return.	Total Fees received.
		£			£				£
1901	32	612,050	103	10	66,725	3	15	9	127
1902	27	273,130	87	4	16,950	3	24	10	106
1903	29	237,160	77	2	8,900	22	19	6	98
1904	14	160,765	57	3	17,800	3	9	6	59
1905	23	225,725	91	5	10,500	33	10	6	84
1906	51	571,629	67	6	18,300	22	8	7	135
1907	65	493,510	95	9	71,210	31	17	5	179
1908	30	238,195	73	4	5,125	2	23	12	104
1909	49	573,705	43	9	35,110	1	14	4	132
1910	30	273,520	56	5	18,425	1	16	9	95

Certain of these companies carry on bank deposit business in addition to their ordinary business; but the number of such companies and the extent of their deposit business is steadily declining, indicating a preference on the part of the public for such institutions, with respect to money on deposit, as make banking their sole business. The number of such deposit companies is ten, and their liabilities, assets, and paid-up capital for the quarter ended June, 1911, were as follows:—

Companies.	Number.	Liabilities (excluding Shareholders).			Assets.			Paid-up Capital.
		Deposits.	Other Liabilities.	Total.	Landed Property.	Other Assets.	Total.	
		£	£	£	£	£	£	£
Investment	8	174,676	96,662	271,338	347,385	437,060	784,445	520,600
Trading	2	61,899	1,665,156	1,727,055	596,502	4,524,525	5,121,027	3,109,000
Total	10	236,575	1,761,818	1,998,393	943,887	4,961,585	5,905,472	3,629,600

Under the Companies (Death Duties) Act, 1901, every company incorporated outside New South Wales for the purpose of mining, or of carrying on an agricultural industry in New South Wales, is obliged to have a registered office in the State, and is liable to the Government of the State for the payment of death duties on the decease of a member of the company, wherever such member may have been domiciled. This latter obligation, however, only operates where the value of shares held by the member at time of his death exceeds £1,000.

CO-OPERATIVE TRADING SOCIETIES.

Registrations under that section of the Building and Co-operative Societies Act, 1901, which relates to co-operative societies, number 125, of which only forty were still on the register at the end of 1910. There is, however, evidence of increased activity in the co-operative movement, as denoted by the number of new societies formed, viz., five in 1909, twenty-nine in the five years 1905-1909, and ten in 1910.

The working of the co-operative societies during the years 1909 and 1910 will be seen below :—

Liabilities.		1909.	1910.	Assets.		1909.	1910.
		£	£			£	£
Share Capital ... ..	...	97,891	121,241	Freeholds ... ..	...	71,254	80,430
Reserves ... ..	...	42,152	46,851	Stocks... ..	...	117,865	132,609
Other Liabilities ... ..	...	73,140	66,580	Other Assets ... ..	...	63,268	71,745
Profits ... ..	...	39,204	50,112				
Total ... ..	...	2 52,387	284,784	Total ... ..	...	252,387	284,784

The advance made during the year 1910 was eminently satisfactory. In the period from 1904 to 1910, the share capital of the societies was nearly trebled, and during each year the societies paid dividends ranging up to 10 per cent., in addition to bonuses, on trading accounts, to shareholders up to 4s. 6d. per £, and to non-shareholders up to 1s. per £. Considering the small amount of capital invested, the results obtained were surprisingly good, and afford liberal inducements for the further development of these institutions. The majority of existing societies are engaged in general trading, but individual societies are engaged in the produce trade, in baking, dispensing, timber-cutting. Societies established outside the congested metropolitan and suburban districts are almost, without exception, established in the more or less densely populated mining districts.

BENEFIT BUILDING AND INVESTMENT SOCIETIES.

The provisions of the Building and Co-operative Societies Act, 1901, enable any number of persons to form themselves into a benefit building and investment society for the purpose of subscribing money to enable members to erect or purchase dwellings, &c., by loans secured to the society by mortgage until the amount of the shares has been fully paid. These institutions are established solely for the benefit and advantage of the subscribing members, and their receipts are confined, as a rule, to the subscriptions. At the close of 1910 the building societies which had been registered under the Act numbered 209, of which only 85 remained in existence at that date, 66 being Starr-Bowkett, and 19 Permanent Building Societies. Of the remainder, some, being terminating societies, had ceased to exist; others had become Limited Companies under the Companies Act, and consequently ceased to operate under the Building Societies Act; and a large proportion had become defunct.

Returns from the existing institutions show the aggregate liabilities and assets, &c., of these societies at the date of their latest balance-sheets as follows:—

Societies.	Number.	Liabilities.				Assets.			Profit and Loss Credit.
		Deposits.	Subscriptions and Shares.	Other Liabilities.	Total.	Advances.	Other Assets.	Total.	
		£	£	£	£	£	£	£	£
Starr-Bowkett ..	66	....	324,452	36,057	360,509	331,653	57,464	389,117	28,608
Land, Building, and Investment.	19	450,025	310,093	102,062	862,180	775,058	122,400	897,458	35,278
Total ..	85	450,025	634,545	138,119	1,222,689	1,106,711	179,864	1,286,575	63,886

During the past seven years the societies of the Starr-Bowkett type, which are usually terminating societies working by ballot and sale of advances, have increased numerically from 17 to 66, while the Permanent Building Societies have made relatively little progress. In the five years 1906 to 1910, the number of Starr-Bowkett societies has trebled, while the assets have increased from £151,697 to £389,117; advances to members have increased in the same period from £105,475 to £331,653. Of 32 such societies formed during the last three years, 21 were established in Sydney and suburbs, the probable incentive to their rapid multiplication in the metropolitan and suburban area being the generally increasing rental rates.

LIFE AND ENDOWMENT ASSURANCE.

Particulars relating to life assurance institutions are obtained from the reports published and circulated by the companies, not from official returns, and unfortunately their statements do not sufficiently separate local from foreign business. During 1910 there were sixteen institutions operating in the State. Of these, seven were local, four had their head offices in Victoria, one in New Zealand, one in the United Kingdom, and three in the United States of America. The volume of the local business of those last mentioned, proportionately to the total, is, however, so small that returns relating to the American offices are omitted from the comparisons, unless shown specifically. Several companies, uniting life with other classes of insurance, have local branches or agencies, but their transactions in life risks in the State are unimportant.

Of the local institutions, the Australian Mutual Provident Society is incorporated under a special Act; and the following were registered under the Companies Act: The City Mutual Life Assurance Society (Limited) in 1879, the People's Prudential Assurance Company (Limited) in 1896, the Standard Life Association (Limited) in 1899, and amalgated in 1911 with the Colonial Mutual Life Assurance Society (Limited); the Phoenix Mutual Provident Society (Limited) registered in 1902, and the Mutual Life and Citizens' Assurance Company (Limited), formed by amalgamation of two local companies in January, 1908, and further fortified by the amalgamation with it, in 1910, of the Australian Widows' Fund Life Assurance Society (Ltd.).

The Phoenix Mutual Provident Society (Limited), a local institution, transacts only industrial business, and the business of the Provident Life Assurance Company, of which the head-office is in New Zealand, does not distinguish its ordinary from its industrial business.

The ordinary life assurance business of the institutions operating in the State, in comparison with their Australasian business, may be summarised thus:—

	Societies.	Policies in Force.	Amount Assured.	Bonus Additions.	Total Assurance and Bonuses.	Annual Premium Income.
	No.	No.	£	£	£	£
Australasian Business ..	14	556,701	139,173,479	18,051,609	157,230,178	4,712,926
New South Wales Business	14	155,531	35,972,500	4,526,461	40,499,041	1,164,948

The local business thus represents 26·5 per cent. of the policies in force, and 25·8 per cent. of the total sum assured in Australasia by the companies operating in the State. The Provident Life Assurance Company has been excluded from this table, as its ordinary business is included with the industrial branch.

The results of the latest actuarial investigation of each society are given in detail in Part "Private Finance" of the Statistical Register.

Ten of the companies are mutual, and the remainder are "mixed"—that is, proprietary companies, dividing profits with the policy-holders. In addition to life assurance, eight of the institutions transact industrial business; two, accident and invalidity insurance; and one (the Australian Alliance Assurance Company), fire, marine, and guarantee insurance; and the Liverpool, London, and Globe, fire insurance. Most of the offices have representatives in all the Commonwealth States and New Zealand, four institutions have extended their operations to London, and two also to South Africa.

The following table gives the total business in force in the ordinary branch in detail, for each society at the close of 1910. The item "Sums assured" means the sums payable, exclusive of reversionary bonuses, at death, or on attaining a certain age, or at death before that age:—

Institution.	Policies in Force.	Sums Assured.	Bonus Additions.	Total, excluding Annuities.	Annual Premium Income.
<i>Head Office in New South Wales.</i>					
Australian Mutual Provident Society	No. 246,702	£ 68,709,076	£ 13,920,463	£ 82,630,139	£ 2,220,467
Mutual Life and Citizens' Assurance Company (Ltd.)	113,725	21,181,885	1,281,738	22,463,623	746,722
City Mutual Life Assurance Society (Ltd.)	17,852	2,435,453	102,611	2,538,064	101,249
The Standard Life Association (Ltd.)	47	4,773	....	4,773	§
†† Australian Metropolitan Life Assurance Company (Ltd.)	2,554	239,865	2,828	242,693	10,959
People's Prudential Assurance Company (Ltd.)	2,680	132,411	3,090	135,501	6,687
<i>Head Office in Victoria.</i>					
Australian Alliance Assurance Company	498	173,257	19,689	192,946	4,225
National Mutual Life Association of Australasia (Ltd.)	94,329	23,012,489	2,103,876	25,116,365	801,348
Colonial Mutual Life Assurance Society (Ltd.)	51,178	12,189,467	526,011	12,715,478	419,331
† Australasian Temperance and General Mutual Life Assurance Society (Ltd.)	37,988	3,956,045	70,839	4,026,884	152,099
<i>Head Office in United Kingdom.</i>					
† Liverpool, London, and Globe Insurance Company	385	187,563	§	187,563	5,571
<i>Head Office in United States.</i>					
† Equitable Life Assurance Society of the United States	8,197	2,864,516	20,554	2,885,070	100,160
† Mutual Life Insurance Company of New York	4,121	1,602,582	¶	1,602,582	51,831
† New York Life Insurance Company	6,495	2,488,497	¶	2,488,497	92,277
Total	586,701	139,178,479	18,051,699	157,230,178	4,712,926

† 30th September, 1910.

† Australian business only.

‡ Information not available.

¶ Included in previous column.

†† Since amalgamated with Colonial Mutual Life Assurance Society, Ltd.

The business in force at the end of 1910 in the State of New South Wales only, under headings similar to those of the preceding table, is given below:—

Institution.	Policies in Force, exclusive of Annuities.	Amount Assured, exclusive of Bonuses.	Bonus Additions.	Total.	Annual Premium Income.
<i>Head Office in New South Wales.</i>					
Australian Mutual Provident Society	No. 69,933	£ 20,118,666	£ 4,077,065	£ 24,195,731	£ 647,021
Mutual Life and Citizens' Assurance Company (Ltd.)	31,788	5,930,149	375,997	6,306,146	202,836
City Mutual Life Assurance Society (Ltd.)	8,499	1,119,157	‡	1,119,157	‡
Standard Life Association (Ltd.)	25	3,107	... 3,107	3,107	‡
Australian Alliance Assurance Company	Nil.	Nil.	Nil.	Nil.	Nil.
National Mutual Life Association of Australasia (Ltd.)	15,853	3,375,305	‡	3,375,305	119,914
Colonial Mutual Life Assurance Society (Ltd.)	10,589	1,724,262	51,753	1,776,015	62,165
† Australasian Temperance and General Mutual Life Assurance Society (Ltd.)	8,362	832,614	12,745	845,359	32,101
Australian Metropolitan Life Assurance Company (Ltd.)	1,333	123,772	1,240	125,012	5,567
Equitable Life Assurance Society of the United States	1,807	682,968	4,561	687,529	21,794
Mutual Life Insurance Company of New York	2,246	980,098	§	980,098	31,831
New York Life Insurance Company	2,265	883,270	§	883,270	32,736
Liverpool and London and Globe Insurance Company	151	66,811	‡	66,811	2,296
People's Prudential Assurance Co. (Ltd.)	2,680	132,411	3,090	135,501	6,687
Total	155,531	35,972,590	4,526,451	40,499,041	1,164,948

† 30th September, 1910.

‡ Information not available.

§ Included in previous column.

The following table gives a summary of the new business completed in each of the past ten years by the Australian offices represented in New South Wales. The assurance and endowment policies (ordinary branch) only are considered, as the annuity transactions are unimportant:—

Year.	New Policies.	Amount Assured.		Annual Premiums.	
		Total.	Per Policy.	Total.	Per £100 of Assurance.
	No.	£	£	£	£ s. d.
1901	43,004	9,069,130	211	328,086	3 12 4
1902	43,865	9,164,636	209	334,627	3 13 0
1903	44,504	9,624,405	216	349,410	3 12 7
1904	48,308	10,238,366	212	372,133	3 12 8
1905	49,736	10,731,768	216	398,565	3 14 3
1906	54,843	12,105,063	221	440,466	3 12 9
1907	60,716	13,143,741	216	474,069	3 12 2
1908	67,033	13,646,727	204	484,223	3 11 0
1909	74,193	13,965,842	188	490,210	3 10 2
1910	84,372	16,183,437	192	571,823	3 10 8

The average sum assured was £192 in 1910, compared with £211 in 1901; the annual premium for £100 has varied from a minimum of £310s. 2d. in 1909 to a maximum of £3 14s. 3d. in 1905. The proportion of policies for large amounts has diminished apparently, and at the present time about 50 per cent. of the total assurance business represents endowment assurance, the combination of investment with insurance thus afforded being favoured by the assuring public. The average sum assured per endowment policy is below that of the whole-life policies, while the average annual premium is higher, as may be expected from the nature of the contract. The new assurances effected during the year, less the void business or discontinuances, represent the annual additions to the sums assured; this is shown in the following comparison for the ten years ended 1910:—

Year.	New Assurances.	Void Business.	Net yearly increase to sums assured.
	£	£	£
1901	9,069,130	5,712,665	3,356,465
1902	9,164,636	5,804,255	3,360,381
1903	9,624,405	6,007,494	3,616,911
1904	10,238,366	6,364,307	3,874,059
1905	10,731,768	7,139,977	3,591,791
1906	12,105,063	8,251,766	3,853,297
1907	13,143,741	6,268,404	6,875,337
1908	13,646,727	8,059,919	5,586,808
1909	13,965,842	8,226,347	5,739,495
1910	16,183,437	10,044,784	6,138,653

The receipts of the societies are represented chiefly by the collections from premiums on policies and by interest arising from investments of accumulated funds; the payments on account of policies matured and surrendered, cash bonuses, and expenses of management constitute the bulk of the disbursements.

The excess of receipts over expenditure represents the annual additions to the reserves. The general direction of business of the Australasian

societies is shown in the following table; the figures for 1910 include the Standard Life Association (Limited), but combined with the society with which it amalgamated early in 1911.

Year.	Societies.	Policies in Force.	Receipts.	Expenditure.	Excess.	Excess per Policy.
	No.	No.	£	£	£	£
1895	10	268,242	3,392,423	2,334,481	1,057,942	3·94
1900	11	331,868	4,093,376	2,648,303	1,445,073	4·35
1905	14	†756,585	5,437,589	3,834,272	1,603,317	2·12
1906	14	†776,970	5,780,943	3,959,541	1,821,402	2·34
1907	14	†857,364	6,143,067	4,070,350	2,072,717	2·42
1908	13	†915,452	6,376,051	4,323,264	2,052,787	2·24
1909	13	†972,467	6,947,941	4,550,195	2,397,746	2·46
1910	11	†1,056,173	7,131,250	4,619,440	2,511,810	2·38

† Includes Industrial business.

The aggregate receipts and disbursements for the eleven institutions for 1910 were as follow, ordinary, industrial, and accident and invalidity branches being included :—

Receipts.			Expenditure.		
		£			£
Premiums—			Claims		2,612,046
New		577,387	Surrenders		540,371
Renewal		*4,397,383	Annuities		94,508
Consideration for Annuities ...		117,968	Cash Bonuses and Dividends ...		121,141
Interest		1,963,425	Expenses		1,016,153
Other Receipts (Rents, &c.) ...		75,087	Amount written off to Depreciation, Reserves, &c. ...		235,221
Total		£ 7,131,250	Total		£ 4,619,440

* Includes New Industrial, and Accident and Invalidity premiums.

The additions to the funds from year to year have shown a considerable increase. The amount of funds and the interest received thereon were as follow:—

Year.	Accumulated Funds.		Interest.	
	Additions during year.	Total Amount.	Amount received.	Average Rate realised.
	£	£	£	per cent.
1890	1,404,215	14,580,210	827,909	5·97
1895	1,057,942	20,438,224	1,037,477	5·21
1900	1,445,073	26,491,025	1,161,696	4·51
1905	1,603,317	34,915,842	1,527,690	4·48
1906	1,821,402	37,486,144	1,565,611	4·32
1907	2,072,717	39,558,861	1,679,440	4·36
1908	2,052,787	41,611,648	1,764,845	4·24
1909	2,397,746	43,226,872	1,877,593	4·47
1910	2,511,810	45,668,204	1,963,425	4·42

The decrease in earning power over the period reviewed is noticeable; but comparison with the bank rate of interest on fixed deposits, given on a previous page, shows that diminished rates are general, and that the fall in interest earned by the insurance companies is in steady proportion to the general decline.

EXPENSES OF MANAGEMENT.

The expenses of management for 1910 in the aggregate represent 14.25 per cent. of total receipts, or 20.03 per cent. of total expenditure. The ratio between management expenses and premium income must necessarily vary with the volume of new business transacted and the age of the society, quite apart from the intensity of competition for the new business. The following figures show the cost of management per policy and per cent. of premium income and gross income:—

Year.	Management Expenses.	Premium Income.	Gross Receipts.	Policies.	Management Expenses.		
					Per Policy.	Per cent. of—	
	£	£	£	No.	£	Premium Income.	Gross Receipts.
1895	438,524	2,380,167	3,392,423	268,242	1.635	18.42	12.93
1900	565,380	2,799,512	4,093,376	331,863	1.703	20.19	13.81
1905	+858,741	3,500,448	5,437,539	756,535	1.130	24.53	15.79
1906	+878,299	3,840,504	5,780,943	776,970	1.133	22.87	15.19
1907	+941,695	4,330,701	6,143,067	857,364	1.098	21.74	15.33
1908	+992,771	4,554,211	6,376,051	915,452	1.084	21.80	15.57
1909	+1,022,932	4,788,506	6,947,941	972,467	1.052	21.36	14.72
1910	+1,016,153	5,074,204	7,131,250	1,056,173	.962	20.03	14.25

† Includes Industrial business. ‡ Includes Industrial and Accident and Invalidity business.

ASSETS AND LIABILITIES OF ASSURANCE COMPANIES.

The aggregate assets and liabilities are shown in the subjoined table:—

Year.	No. of Societies.	Liabilities.			Assets.		
		Paid-up Capital and Accumulated Funds.	Other Liabilities.	Total.	Loans on Mortgages and on Policies.	Securities, Freehold Property, &c.	Total.
		£	£	£	£	£	£
1895	10	21,497,059	.....	21,497,059	15,600,229	5,896,830	21,497,059
1900	11	27,471,223	.....	27,471,223	19,013,579	8,457,644	27,471,223
1905	14	35,867,362	.....	35,867,362	22,072,061	13,795,301	35,867,362
1906	14	37,486,144	88,272	37,574,416	24,618,651	12,955,765	37,574,416
1907	14	39,015,198	638,889	39,654,087	25,710,088	13,943,999	39,654,087
1908	13	40,710,897	1,035,323	41,746,220	27,071,098	14,675,122	41,746,220
1909	13	43,226,872	777,556	44,004,428	28,642,726	15,361,702	44,004,428
1910	11	45,668,204	775,785	46,443,989	30,625,778	15,818,211	46,443,989

Loans on mortgage and on the policies of the societies represent 66 per cent. of the total assets. In former years insurance companies sought only these forms of investment, but recently attention has been given to Government securities, loans to municipalities, and investments in shares, and considerable sums are deposited with banks, or sunk in freehold and leasehold property. Investments on personal security are unusual, advances being generally combined with life policies. In some of the States companies are obliged by law to deposit certain sums with the Treasury as a guarantee of good faith, and the amount so lodged is included in their balance-sheets, under the head of Government securities or of deposits. The ratio of loans on mortgage for policies to total liabilities over the years quoted in the previous table is as follows:—

1895 ...	...	72.57 per cent.	1907 ...	...	64.83 per cent.
1900 ...	...	69.21 "	1908 ...	...	64.85 "
1905 ...	...	61.54 "	1909 ...	...	65.09 "
1906 ...	...	65.52 "	1910 ...	...	65.94 "

INDUSTRIAL ASSURANCE.

In addition to the ordinary life transactions, a large industrial business has grown up during recent years. The policies in this class are usually for small amounts, and the premiums, in most cases, are payable weekly or monthly. The assurances may be effected on the lives of infants and adults, and the introduction of this class of business has proved of great benefit to the industrial population.

Seven of the Australasian companies combine industrial with ordinary business, while two limit their operations to industrial and medical benefit transactions. The balance-sheets of the companies, however, do not admit of a satisfactory comparison of the business transacted, as the two branches are not always treated separately. For the year 1910 the total and local business of the nine companies showing transactions in the industrial branch, are contrasted in the following table:—

Institution.	Total Business.			Local Business.		
	Policies in Force.	Amount Assured.	Annual Premium Income.	Policies in Force.	Amount Assured.	Annual Premium Income.
	No.	£	£	No.	£	£
Australian Mutual Provident Society	53,527	1,911,308	118,266	17,867	572,169	36,889
Mutual Life and Citizens' Assurance Company (Ltd.)	224,721	4,237,458	216,744	67,353	1,266,564	68,283
Australasian Temperance and General Mutual Life Assurance Society (Ltd.)	118,550	2,370,597	150,790	24,049	506,610	33,915
Colonial Mutual Life Assurance Society (Ltd.)	41,299	1,059,612	57,492	17,468	423,813	23,067
The Standard Life Association (Ltd.)	345	6,151	§	127	1,440	§
Provident Life Assurance Company	24,106	730,780	38,975	2,242	57,498	2,949
Australian Metropolitan Life Assurance Company (Ltd.)	16,049	240,051	21,417	9,030	194,773	12,071
People's Prudential Assurance Company (Ltd.)	4,963	99,738	7,256	4,963	99,738	7,256
Phoenix Mutual Provident Society	110	2,161	177	110	2,161	177
Total	488,670	10,747,856	611,117	143,209	3,124,766	184,607

‡ Includes Bonus additions.

§ Not available.

The operations in New South Wales represent 29·3 per cent. of the total number of policies in force and both the amount assured and the annual premium income per policy vary but slightly from the averages of the total business, viz.:—

	Total.	Local.
Amount assured for Policy	£22·0	£21·8
Annual Premium Income per Policy	1·25	1·29

The full extent of the local business, ordinary and industrial, is shown in the following figures:—

Business.	Policies in Force.	Amount Assured (excluding Bonus).	Annual Premium Income.
	No.	£	£
Ordinary	155,531	35,972,590	1,164,948
Industrial	143,209	3,124,766	184,607
Total	298,740	39,097,356	1,349,555

These figures show that industrial policies represent 47·9 per cent. of the total policies in force.

The number of policies per 1,000 of the population at December, 1910, is 182; the total sum assured represents £23·84 per capita, and the annual premium income 16s. 6d. per capita.

The total receipts and disbursements relating to industrial assurance of such companies as publish the information separately are given below, as derived from the latest balance-sheets in 1910:—

Institution.	Receipts.	Expenditure.		Excess (Reserves Additions).	Management Expenses per cent. of Receipts.
		Manage- ment.	Total.		
Australian Mutual Provident Society	£ 105,438	£ 51,638	£ 55,827	£ 49,611	per cent. 48·97
Mutual Life and Citizens' Assurance Company (Ltd.) ...	243,286	101,584	182,193	61,093	41·75
*Colonial Mutual Life Assurance Society (Ltd.)	98,917	21,971	25,454	73,463	22·21
Australasian Temperance and General Mutual Life Assurance Society (Ltd.)	155,333	59,360	99,489	55,844	38·21
Phoenix Mutual Provident Society (Ltd.)	2,141	911	1,974	167	42·55
Provident Life Assurance Company	36,342	22,460	32,286	4,056	61·80
Total	641,457	257,924	397,223	244,234	40·21

* Operations for six months only.

The companies which have not separated the receipts and expenditure of their ordinary and industrial business, together hold 10 per cent. of the local industrial policies, but from the information given above it is apparent that expenses of management represent 64·9 per cent. of the total expenditure, including claims, surrenders, and cash dividends, or 40·2 per cent. of receipts, represents 10s. 1d. per policy spent in collecting and handling the total premium income of £1 5s. per policy, for the societies concerned.

ACCIDENT AND INVALIDITY INSURANCE.

Following the passing of the Workmen's Compensation Act, 1910, the majority of societies doing business in New South Wales promptly extended their operations to cover the liabilities of employers in the industries specified as insurable, but no records are yet available to show the magnitude of the business done under this head.

FIRE INSURANCE.

The Fire Brigades Act, 1909, which commenced to operate on 1st January, 1910, embraces a wider area than the earlier Act, which, in practice, applied only to the metropolitan area of Sydney, though it was permissible to extend its provisions to any borough or municipal district of New South Wales. The present Act applies to the city of Sydney, to suburban and country municipalities and shires, numbering in all 139, and grouped in Fire Districts numbering 77. By proclamation the provisions of the Act may be extended to other municipalities and shires.

The Board of Fire Commissioners of New South Wales, consisting of four representatives, being one each elected by the city and suburban area, the country area, the volunteer brigades, and the insurance companies—with a President appointed by the Government—exercises full control in regard to fire prevention in declared districts, and has power to recover charges for attendance at fires outside such districts. On the passing of the Fire Brigades Act, 1909, all existing Fire Brigades Boards were dissolved, their property, real and personal, vesting automatically in the Board of Fire Commissioners, subject to any trusts and liabilities attaching to such property. The board

is charged with the establishment and maintenance of permanent fire brigades, and the authorisation and subsidising of volunteer brigades, for which purposes the funds of the Board are maintained by contributions of one-third each of estimated requirements for each district by insurance companies, municipalities, and the Government; and responsibility for a pro rata contribution is cast upon each owner of property assured in any company, as defined, which is not registered within the State. To ensure efficient operation of these provisions returns are required periodically by the Board from municipalities, insurance companies, and property owners.

The estimates of necessary revenue adopted by the Board for 1910 amounted to £84,548 16s. 9d., being £64,872 for Sydney Fire District, and £19,676 16s. 9d. for the 78 country Fire Districts distinguished during the year; the area of Sydney Fire District was reduced by the transfer of several municipalities to Country Fire Districts, to 152,605 square miles, in which the assessment of annual value was £6,291,988, and the contribution levied upon the municipalities within that district was £21,624, being at the rate of 6s. 10d. per £100 assessment.

... In the extra metropolitan fire districts the assessments varied considerably.

The amount of the net risks held in the metropolitan area has hitherto been obtainable under the Fire Brigades Act of 1902, which required each company holding risks within the proclaimed area under the Fire Brigades Board to furnish annually to the Board the amount held at risk on the preceding 31st December within that area, less the sum reinsured with other contributory companies. This information was for assessment purposes only, the companies contributing one-third of the total annual expenditure of the Board, in sums proportionate to the amount of net risks held by each company within the given area. The total amount levied on the companies towards the expenses of the Board during 1909 was £19,100.

The declared amount of risks held in the metropolitan district from 1884 to 1908 are shown below. The figures are as at the 31st December in each year:—

1884 ... £36,691,000	1893 ... £59,844,701	1902 ... £71,750,461
1885 ... 41,631,582	1894 ... 59,340,096	1903 ... 73,083,028
1886 ... 46,253,370	1895 ... 59,720,282	1904 ... 75,147,807
1887 ... 49,209,395	1896 ... 59,907,953	1905 ... 78,108,749
1888 ... 53,583,000	1897 ... 60,426,170	1906 ... 81,364,129
1889 ... 57,148,388	1898 ... 61,861,909	1907 ... 86,563,304
1890 ... 58,207,183	1899 ... 63,689,331	1908 ... 89,971,992
1891 ... 58,415,945	1900 ... 66,427,642	
1892 ... 61,185,715	1901 ... 69,495,391	

Under the Fire Brigades Act, 1909, the contributions payable by insurance companies are proportionate to the premiums received by or due to the companies during the year; for 1910 returns of premiums aggregating £437,228 were received from 68 companies, fire and marine, and in addition contributions amounting to £443 were received from individual firms who insured goods with companies not registered in New South Wales, this being the first occasion on which such a contribution was required towards the fire protection provided at the expense of locally registered Companies, the municipalities, and the Government.

A summary of receipts and disbursements of 51 fire insurance companies for the year 1910 is shown below. Twelve of these have their head offices in the Commonwealth, 4 in New Zealand, 1 in Canada, 1 in India, 29 in the United Kingdom, and 1 outside the British Empire. With regard to the remainder of the companies which contribute to the maintenance of the Fire Brigades Board, the purely marine offices, which carry fire risks on

goods in transit, have been omitted, while in three cases the information is not available. The life assurance figures of those institutions which combine fire and life business have also been excluded where possible :—

Receipts.		Disbursements.	
	£		£
Premiums (less reinsurances)	39,367,308	Claims paid	19,502,554
Interest, rent, fees, &c.	2,591,177	Expenses of management, &c.	14,745,255
Total	41,958,485	Total	34,247,809

The total liabilities and assets of the same companies were as follows :—

Liabilities.		Assets.	
	£		£
Paid-up Capital	16,403,233	Investments, including accrued interest	110,037,996
Reserve Funds, &c.	40,153,038	Real Estate	12,583,126
Other Liabilities	112,051,983	Other Assets	55,545,721
Balance of Profit and Loss Account	9,558,589		
Total	178,166,843	Total	178,166,843

BANKRUPTCY.

Transactions in insolvency were conducted by the Commissioner of Insolvent Estates till 1888, but under the Bankruptcy Act of 1887, and subsequent amending Acts, which were consolidated under the Act of 1898, the law is administered by a Supreme Court Judge in Bankruptcy. The following statement shows the number of bankruptcy petitions for each of the last five years :—

Year.	Petitions in Bankruptcy.			Petitions withdrawn, refused, &c.	Sequestration Orders granted.
	Voluntary.	Compulsory.	Total.		
1906	337	91	428	22	406
1907	256	111	367	34	333
1908	272	84	356	24	332
1909	297	84	381	15	366
1910	255	97	352	27	325

A fairly consistent decrease in the number of sequestrations has taken place since 1893, and, studied in conjunction with the increase in saving bank deposits, and the position disclosed by the life assurance returns, offers substantial proof of the continued prosperity of the State.

The estates in respect of which certificates of discharge or release have been granted during the time the Act has been in force, number 2,535, including 75 for 1910, being 23·1 per cent. of the total sequestrations. Occasionally application made for a certificate is refused, and taking these into consideration it would appear that out of 100 bankrupts, 72 are unable, or too indifferent, to take the necessary steps to free themselves from bankruptcy. The property of an uncertificated bankrupt, even if acquired subsequently to sequestration, is liable to seizure on behalf of unsatisfied creditors, and as applications for certificates of discharge are apparently the exception rather than the rule, it would appear that the great majority of bankrupts do not attain a position

in which they are likely to be disturbed by unsatisfied creditors. The number of sequestrations for the years the Act has been in force is 17,936, and of these 15,401 remain uncertificated. During 1910 on a total of 325 sequestrations, the liabilities, according to bankrupts' schedules, were £176,088, and the assets amounted to £119,337. The qualification "according to bankrupts' schedules" is necessary, as the returns of assets and liabilities established after investigation by the Court differ widely from those furnished by bankrupts:—

Quinquennial Period.	Sequestrations.	Nominal—		
		Liabilities.	Assets.	Ratio of Assets per £1 of Liability.
	No.	£	£	s. d.
1888-1892	5,730	5,682,689	2,644,382	9 4
1893-1897	6,235	5,760,282	3,406,148	11 10
1898-1902	2,864	2,159,659	994,803	9 3
1903-1907	2,084	1,359,121	781,108	11 6
1908	332	322,850	185,507	11 6
1909	366	168,169	82,563	9 10
1910	325	176,088	119,377	13 7
Total ...	17,936	15,628,858	8,213,888	10 6

The dividend rates paid on the amount of proved liabilities of estates which have been wound-up are not given, as it would involve an investigation of the transactions in each estate; and even this operation would not result in complete returns, as there are estates which remain unsettled during many years.

Official assignees assist the Court in winding-up the estates, each paying all money received by him to the Registrar in Bankruptcy, who places the amount to the credit of the Bankruptcy Estates Account, from which all charges, fees, and dividends are met. The official assignees are required to furnish quarterly statements of the transactions in each estate.

District Registrars in Bankruptcy have been appointed throughout the State, the positions being filled generally by Police Magistrates or other court officials. District Registrars have the same powers and jurisdiction as the Registrar in respect to examinations of bankrupts and the technical business of the court. In this connection reference should be made to the chapter relating to the procedure of the Law Courts.

TRANSACTIONS IN REAL ESTATE.

The Real Property Act, commonly known as "Torrens Act," passed in 1862 to regulate the procedure in regard to land transfers, was modelled on the lines of legislation in South Australia, adopted at the instance of Sir R. R. Torrens. The main features of the Act which were embodied in the Real Property Act, 1900, consolidating the original Act and its amendments, were the transfer of real property by registration of title instead of by deeds; the absolute indefeasibility of the title when registered; and the protection afforded to owners against possessory claims, as a title issued under the Act stands good notwithstanding any length of adverse possession. From the passing of "Torrens" Act all lands sold by the Crown have been conveyed to the purchasers under its provisions, the provisions of the old law being restricted to transactions in respect of grants issued prior to 1862, and governed by the Deeds Registration Act, 1843. The area for which such grants were issued was 7,478,794 acres; of these grants, 2,007,965 acres have since been brought under the provisions of "Torrens" Act, so that the area still held under the earlier Act is 5,470,829 acres.

Lands may be placed under the Real Property Act or "Torrens" Act only when their titles are unexceptional; and as thousands of acres are brought under the Act during the course of every year, it is merely a question of time when the whole of the lands of the State will be under a uniform system. The areas of Crown lands conveyed, and of private lands brought under the Real Property Act during the decade ended 1910, were as follows :—

Year.	Area.			Value.		
	Crown Lands.	Private Lands.	Total.	Crown Lands.	Private Lands.	Total.
	acres.	acres.	acres.	£	£	£
1901	764,431	56,877	821,308	641,361	692,641	1,334,002
1902	897,591	46,678	944,269	813,015	1,089,235	1,902,250
1903	1,403,994	56,492	1,460,486	1,181,102	1,045,780	2,226,882
1904	1,557,667	38,890	1,596,557	1,109,688	907,371	2,017,059
1905	1,834,802	55,251	1,890,053	1,390,255	725,508	2,115,763
1906	1,743,210	98,722	1,841,932	1,486,489	968,449	2,454,938
1907	1,750,597	54,205	1,804,802	1,552,049	1,349,351	2,901,400
1908	1,604,062	85,917	1,689,979	1,502,640	1,173,042	2,675,682
1909	1,227,312	54,903	1,282,215	1,147,768	1,093,796	2,241,564
1910	864,857	74,986	939,843	775,211	1,300,661	2,075,872

For the whole period during which the "Torrens" system has been in operation, 32,692,619 acres, valued at £32,597,355, have been conveyed under its provisions; and 2,007,965 acres, valued at £33,703,759, have been brought under it, the deeds under the old Act having been cancelled.

The transfers and conveyances of private lands which take place during ordinary years indicate in some measure the condition of business in real estate; the volume of these transactions, however, in some years cannot be relied upon as giving more than an indication of speculation or inflation. In the following table, which covers ten years, the money consideration paid on sales of private lands during each year is shown, excluding, of course, lands sold on long terms. During 1888 land to the value of £11,068,873 changed hands, but in 1905 the amount had fallen to £6,865,053; in 1910, the total for the year was £16,016,543, this being the maximum value transferred in any year. The records of recent years, as shown below, indicate that there is an upward tendency in transactions in real estate of a permanent character.

Year.	Conveyances or Transfers.		
	Under Deeds Registration Act.	Under Real Property (Torrens) Act.	Total.
	£	£	£
1901	2,263,853	3,986,229	6,250,082
1902	2,519,247	4,350,050	6,869,297
1903	3,316,360	4,025,286	7,341,646
1904	2,524,799	4,138,994	6,663,793
1905	2,197,031	4,668,022	6,865,053
1906	2,820,456	7,346,558	10,167,014
1907	3,342,526	9,366,063	12,708,589
1908	2,879,955	9,880,177	12,760,132
1909	2,312,529	9,416,875	11,729,404
1910	4,057,760	11,958,783	16,016,543

As already mentioned, the Real Property Act provides that on the issue of a certificate the title of the person named on the certificate is indefeasible. Provision is made, however, for error in transfer, by which persons might

be deprived of their property; as, should the transfer be made to the wrong person, the holder of the certificate cannot be dispossessed of his property unless he has acted fraudulently. To enable the Government to compensate persons who, through error, may have been deprived of their properties, an assurance fund was created by means of a contribution of one half-penny in the pound on the declared capital value of property when first brought under the Act, and upon transmissions of titles of estates of deceased proprietors. It is a sterling testimony of the value of the Act, and of the facility of its working, that payments from the assurance fund to the 31st December, 1907, in respect of titles improperly granted, amounted to £16,326 only.

In 1907 the assurance fund, as a separate account, was closed, and the balance at credit, £157,569, was transferred to the Closer Settlement Account in accordance with the provisions of section 6 of the Public Works and Closer Settlement Funds Act, 1906. All assurance contributions under section 119 of the Real Property Act, 1900, and claims for compensation in pursuance of that Act, are now respectively paid to and discharged from the Closer Settlement Fund.

MORTGAGES.

All mortgages, except those regulated by the Bills of Sale Act of 1898 and the Merchant Shipping Act of 1894, are registered at the Registrar-General's office, and it is a fair assumption that the number recorded represents the bulk of the mortgages effected. Where more than one mortgage has been effected on the same property, the mortgages take priority according to the time of registration, not in accordance with the respective dates of the instruments. The amount of consideration for which a mortgage stands as security is not always stated in the deeds, the words "valuable consideration" or "cash credit" being inserted instead of a specific sum in many of the transactions of banks and other loan institutions, in cases where the advances made are liable to fluctuation; and as this frequently occurs when the property mortgaged is of great value, an exact statement of the total advances against mortgages cannot be given. Consequently the figures in the tables given below relate only to cases in which a specific amount is stated in the deeds, whether that amount be the sum actually advanced or not. The same remark applies also to discharges, the amount of which, as shown in the tables, is still further reduced by the exclusion of mortgages which have been satisfied by foreclosure or seizure, a record of which is not available. Many mortgages, therefore, appear in the official records as current, although the property which they represent has passed away from the mortgagor.

MORTGAGES OF REAL ESTATE.

Mortgages of land are registered either under the Deeds Registration Act or the Real Property Act, according to the Act under which the title of the property stood at the date of mortgage. The mortgages registered for each of the five years ended 1910 were:—

Year.	Mortgages.			Consideration.		
	Under Deeds Registration Act.	Under Real Property Act.	Total.	Under Deeds Registration Act.	Under Real Property Act.	Total.
	No.	No.	No.	£	£	£
1906	3,996	8,062	12,058	3,953,679	7,814,309	11,767,988
1907	4,642	8,783	13,425	5,621,296	8,885,375	14,506,671
1908	5,160	9,726	14,886	6,062,147	10,490,957	16,553,104
1909	5,126	10,380	15,506	5,578,095	15,095,211	20,673,306
1910	5,084	11,329	16,413	6,629,211	17,065,944	23,695,155

The consideration given generally represents the principal owing; in some cases, however, it stands for the limit within which clients of banks and of other loan institutions are entitled to draw, though many of these clients may be in sound positions financially, notwithstanding that their property is mortgaged and unreleased.

The amount of mortgages discharged has always been much less than the amount registered, since the discharges do not include foreclosures, which, if not formally registered as discharges, are nevertheless mortgages cancelled. The volume of the releases is also reduced by mortgages paid off in instalments, as the discharges may be given for the last sum paid, which might happen to bear a very small proportion to the total sum borrowed; and further, the total of discharges is reduced owing to the practice, now largely followed, of allowing mortgages maturing on fixed dates to be extended for an indefinite period.

MORTGAGES ON LIVE STOCK AND WOOL.

Liens on wool, mortgages on live stock, and liens on growing crops are registered under special Acts, the first two under a temporary measure passed in 1847, which was continued from time to time and became permanent by a special enactment in 1860, and the liens on growing crops under the law of 1862, all which enactments are consolidated with Liens on Crops and Wool and Stock Mortgages Act, 1898. Mortgages on live stock are current till discharge, and liens on wool mature at the end of each season, terminating without formal discharge. Mortgages are valid without delivery of the stock or crops to the mortgagees. The figures relating to live stock are given in some detail, as they throw considerable light on the condition of the pastoral industry of the country. They must, however, be taken with this qualification, that the amount stated represents in many cases merely nominal indebtedness, the advances being not necessarily made to persons financially embarrassed. In the table, amounts secured both by lien on the wool and by mortgage of the sheep, are included under the head of mortgages only:—

Year.	Wool.			Live Stock.				
	Liens.	Sheep.	Consideration.	Mortgages.	Sheep.	Horned Cattle.	Horses.	Consideration.
	No.	No.	£	No.	No.	No.	No.	£
1906	1,634	3,444,400	658,292	2,818	3,054,038	94,893	15,937	1,243,972
1907	1,751	3,931,620	834,747	3,176	3,401,888	139,091	13,481	1,723,708
1908	1,755	3,750,145	799,479	3,318	3,034,031	137,003	18,926	1,952,210
1909	1,778	4,197,519	947,858	2,984	2,058,456	113,416	16,067	1,737,047
1910	1,600	3,625,589	657,215	3,142	3,488,617	125,588	19,894	1,404,957

DISCHARGES OF MORTGAGES.

The number of discharges registered amounted to rather more than one-third of the number of mortgages of live stock registered during last year. The figures for the ten years ended 1910 were:—

Year.	Discharges.	Amount.	Year.	Discharges.	Amount.
	No.	£		No.	£
1901	438	960,453	1906	768	1,184,201
1902	387	751,455	1907	914	1,236,705
1903	397	532,868	1908	873	833,609
1904	410	402,398	1909	912	684,714
1905	509	644,569	1910	1,038	1,232,079

LIENS ON GROWING CROPS.

Under the provisions of the Act, liens, the duration of which may not exceed one year, are made on agricultural and horticultural produce. Such advances do not ordinarily reach large sums, either individually or in the total, as there is an element of uncertainty in the security offered. During the last ten years the advances ranged from £96,363 to £181,234 per annum, those registered in 1910 numbering only 798, and covering advances to the extent of £94,804 :—

Year.	Liens.	Consideration.	Year.	Liens.	Consideration.
		£			£
1901	1,390	131,814	1906	1,264	142,567
1902	1,077	109,342	1907	917	96,363
1903	1,607	181,234	1908	921	111,320
1904	1,406	159,620	1909	1,115	134,500
1905	1,520	172,368	1910	798	94,804

MORTGAGES ON SHIPS.

Mortgages of registered British vessels are arranged under the Imperial Merchant Shipping Act of 1894. The mortgages are divided into two classes, one in which the ship is the sole security, and the other in which the advances are made on the security of the "account current," which may consist of ships, wharfage appliances, &c. Registrations are effected at the two ports of registry, Sydney and Newcastle; and the returns are given in the sub-joined statement.—

Year.	Mortgage on Ships only.				Mortgage on Account Current.			
	Sailing Vessels.		Steam Vessels.		Sailing Vessels.		Steam Vessels.	
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount
		£		£		£		£
1906	15	14,150	21	65,907	3	3	17	16,781
1907	3	990	11	18,240	2	2,001	9	20,008
1908	4	1,705	14	7,906	3	4,001	16	15,712
1909	11	1,832	12	19,500	5	2,363	8	10,504
1910	...	.....	18	37,320	1	*	1	*

* Information not available.

BILLS OF SALE.

All mortgages on personalty other than ships and shipping appliances, wool, live stock, and growing crops, are filed at the Supreme Court under the Bills of Sale Act, 1855, and its amendments, as consolidated by the Bills of Sale Act, 1898, which was also amended in 1903 to secure that a bill of sale shall be ineffective as to certain household furniture unless the consent of the wife or husband of the maker or giver of the bill is endorsed thereon. The Act provides that each document shall be filed within thirty days after it is made or given, otherwise the transaction is illegal; also, that the registration shall be renewed every twelve months; and to prevent fraud and imposition the records are open to the inspection of the public. The total amount of advances made annually on bills of sale is not readily available; but, judging from the number of bills filed, the sum must be considerable. All classes of the community participate in the advantages of

the Act, but brewers and money lenders appear conspicuously among the transferees. No complete record is made of the bills terminated voluntarily or by seizure, the official records showing only those discharged in the ordinary way. Seizures of the security given, which generally consists of household furniture and stock-in-trade, are frequent, and it is to be regretted that no record of them is kept; but, as previously stated, the neglect in the registration of foreclosures is a weakness in the procedure under all Acts regulating mortgage transactions. The bills filed and the discharges registered for the five years ended 1910 are as follow :—

Year.	Registrations.		Renewals under Bill of Sale Act of 1898.
	Filed in Supreme Court.	Satisfied or orders for discharge made.	
1906	2,428	268	2,069
1907	2,238	304	1,894
1908	2,481	251	1,725
1909	2,212	265	1,779
1910	2,335	282	1,713

DISTRIBUTION OF PROPERTY.

In making estimates of the wealth of a country, the probate value of estates has frequently been taken as the basis of the calculations. This, however, is hardly correct, as the probate returns give only the gross value of property left by deceased persons, irrespective of debts. To assume that the average amount of property left by each adult who dies during a given period represents the average possessed by each living adult is open to two objections. First, the average age of adults who die is greater than that of those still surviving; and secondly, the wealth of an individual increases with years, and, generally speaking, is greater at death than at any period during life.

The valuations of estates for stamp duty purposes are, however, on a different plane. Such valuations are far below those exhibited in the probate returns, and a table is annexed showing the number of estates and amount entered for probate in each of the calendar years 1901 to 1910, the number of estates and amount on which stamp duty was paid during the corresponding financial years ended 30th June following in each case being given in the last two columns :—

Year.	* Probate Court Returns.		† Stamp Duty Returns.	
	Estates.	Amount.	Estates.	Amount.
		£		£
1901	2,657	7,033,459	2,726	5,570,718
1902	2,782	5,807,620	2,740	5,385,467
1903	2,767	7,179,882	2,750	5,205,045
1904	2,850	6,155,963	2,712	5,297,552
1905	2,804	7,714,416	2,802	6,066,182
1906	2,852	7,529,437	2,797	6,400,392
1907	3,084	7,563,499	3,172	6,655,673
1908	3,094	7,838,572	3,239	7,215,018
1909	3,185	11,142,068	3,187	10,417,169
1910	3,336	8,834,934	3,303	7,827,275
Total ...	29,411	76,799,850	29,428	66,040,491

* Year ended 31st December.

† Year ended 30th June following.

As the table shows, the number of estates during the ten years reached 29,411, the total assessed value for probate being £76,799,850. According to these figures, the average value of estate left by each person who died possessed of property was £2,611. A much better guide, however, is furnished by the net value of estates on which stamp duty is paid. According to these figures, as shown in the above table, stamp duty was paid from 1st July, 1902, to 30th June, 1911, on 29,428 estates, valued at £66,040,491. This gives an average value per estate of £2,244.

ABSENTEES.

Analysis of the returns collected by the Stamp Office in Sydney shows that practically 86 per cent. of estates represented persons domiciled in New South Wales, leaving only 14 per cent. of absentees, of whom approximately 8 per cent. had been resident in Europe or Great Britain, and 6 per cent. in the Australian States or New Zealand.

ESTATES OF DECEASED PERSONS.

Some idea of the proportion of the whole population possessing estates of sufficient value to be the subject of specific bequest may be gained from a comparison of the number of persons leaving property at death, with the total number of persons dying during a fixed period. In the following table such a comparison has been instituted for quinquennial periods since 1880, the figures showing the proportion of persons dying possessed of property per hundred of the total deaths in each quinquennium:—

Period.				Proportion of Estates per 100 deaths of total population.
				per cent.
1880-84	...	...	...	11·0
1885-89	...	...	...	11·6
1890-94	...	...	...	13·2
1895-99	...	...	...	14·9
1900-04	...	...	...	17·0
1905-09	...	...	...	19·1
1910	...	...	...	20·6

The above figures indicate a widely diffused basis of prosperity, which is being continually enlarged.

A still more convincing illustration of the wide distribution of property in New South Wales is afforded by the next table, which shows the proportion of estates per 100 deaths of adult males, as well as the proportion per 100 deaths of adult males and females. The latter method of comparison is frequently neglected; but since large numbers of females are possessors of valuable property, the fact should certainly be taken into consideration in order to arrive at a fair estimate of the distribution of private wealth. The figures are given for quinquennial periods, commencing with the year 1880:—

Period.				Proportion of Estates per 100 deaths of adult Males.	Proportion of Estates per 100 deaths of adult Males and Females.
1880-84	...	...	...	34·6	22·3
1885-89	...	...	...	37·5	23·8
1890-94	...	...	...	41·2	25·8
1895-99	...	...	...	42·7	26·2
1900-04	...	...	...	46·0	27·8
1905-09	...	...	...	48·8	29·2

Particulars available for 1910 point to a maintenance of the quinquennial rates as shown above, but the same weakness exists in these figures as in the case of those previously given in regard to the values, for approximately three in every hundred estates, concerning which probate or letters of administration are granted, prove to be without assets, so that the proportions must be somewhat reduced.

The statement that there is a wide distribution of property in New South Wales must be taken relatively. The following table is of interest as showing the distribution of property amongst the persons who died during the ten years ended June, 1911 :—

Category.	Number of Persons with Property, Deceased.	Proportion per 10,000 in each Group.	Value of Estates of Deceased.	Proportion per cent. in each Group.
			£	
£50,000 and over	162	55	22,673,710	34·33
£25,000 to £50,000	218	74	7,426,237	11·24
£12,500 to £25,000	429	146	7,381,770	11·18
£5,000 to £12,500	1,177	400	9,147,223	13·85
£200 to £5,000	18,061	6,137	18,542,114	28·08
Under £200	9,381	3,188	869,437	1·32
Total	29,428	10,000	66,040,491	100·00

Prosperity as indicated by the number and amount of incomes assessed for income tax during the past four financial years shows as follows :—

Annual Income.	1908.		1909.		1910.		1911.	
	No.	Net Income.	No.	Net Income.	No.	Net Income.	No.	Net Income.
£		£		£		£		£
Under 1,000	4,723	1,042,468	4,274	997,592	4,406	1,105,645	4,261	1,118,623
£1,001—1,200	139	151,849	147	162,986	145	159,971	173	190,698
1,201—2,000	364	562,069	343	569,226	423	659,684	462	718,943
2,001—5,000	378	1,168,614	378	1,217,581	463	1,434,196	542	1,660,591
5,001—10,000	180	1,235,745	172	1,131,902	198	1,385,458	213	1,474,850
10,001—20,000	89	1,203,870	75	1,031,875	107	1,474,589	114	1,613,656
20,001 & upwards	60	3,486,411	53	2,642,689	68	3,347,377	81	4,318,502
Total	5,933	8,851,026	5,442	7,753,851	5,810	9,566,920	5,846	11,095,863

Relating these figures to the mean population of the year, the following proportions are derived.

Income.	Proportion per 10,000 of Mean Population.			
	1908.	1909.	1910.	1911.
£				
1,000 and under	30·71	27·28	27·68	26·27
1,001 to £5,000	5·73	5·54	6·48	7·26
5,001 and over	2·14	1·91	2·34	2·51
	38·58	34·73	36·50	36·04

It will be seen that while the return of taxable incomes of £1,000 per annum or less, and also the total of all incomes, has decreased, the proportion of incomes in each of the two higher classes has increased steadily.

Under the Income Tax Deduction Act, 1907, no tax has been levied during the past four years on incomes of less than £1,000 per annum derived from personal exertion; but with the enactment of the Income Tax Act, 1911, an income tax is leviable upon incomes under £1,000 per annum, the maximum income derived from personal exertion exempt from the tax being £300 per annum. This Act operates as from the beginning of 1912, and it is anticipated that much valuable information will result from an analysis and summarising of the returns as they are collected.

PUBLIC FINANCE

SYSTEM OF REVENUE AND EXPENDITURE ACCOUNTS.

A COMPLETE revolution in the system of keeping the public accounts of New South Wales was effected in the year 1895, when the Audit Act Amendment Act of 1895 was passed. This Act declares that all appropriations from the Consolidated Revenue Fund must lapse at the close of the financial year to which they refer, and from the 1st day of July, 1895, the cash receipts within the financial year must be considered as the actual income, and the cash payments during the same period the actual outlay. This introduced what is usually termed the "cash basis," which was further qualified in the Consolidation and Amending Act of 1902 by fixing the balance of the Consolidated Revenue Fund as on the 1st July, 1902.

Prior to the adoption of the cash basis system, the expenditure for the services of a year and the actual expenditure during that year could be shown only by two different methods of accounts. When a specific appropriation was made for any service, the expenditure incurred under such authorisation would be charged against the year for which the vote was taken, irrespective of the date when the payments were made; and, therefore, the public accounts for any year could not be closed until all appropriations lapsed, or were written off, or exhausted. The consequence was that when the expenditure exceeded the income, there were frequent differences of opinion between the incoming and outgoing Treasurers as to the propriety of charging items, sometimes of large amount, to particular years, with the result that conflicting statements were made, to the confusion of the inexpert and to the detriment of the public credit.

Even under the present circumstances, an inquirer may occasionally have some trouble in comprehending the most carefully prepared statement of the finances of the State, for he must ever keep before his eyes the fact that the term "expenditure" in the official statements does not possess always the same meaning.

During the years 1905-1911 the expenditure of the State was £92,401,994, while the actual revenue obtained was £92,977,481, the total excess of revenue during the seven years being £575,487. The actual excess of expenditure in some years, however, was considerable, as will be seen from the statement below. The figures are exclusive of advances made and repaid; but for the last five years the statements of expenditure include transfers in aid of the Public Works Fund, and during the years 1907-10 transfers in aid of Closer Settlement Fund:—

Year ended 30th June.	Revenue.	Expenditure.	Excess of Revenue over Expenditure.	Excess of Expenditure over Revenue.
	£	£	£	£
1905	11,336,918	11,195,075	141,843	.....
1906	12,283,082	11,386,864	896,218	.....
1907	13,392,435	12,799,797	592,638	.....
1908	13,960,763	13,700,072	260,691	.....
1909	13,625,071	14,692,168	.....	1,067,097
1910	14,540,073	14,184,327	355,746	.....
1911	13,839,139	14,443,691	.....	604,552

The total expenditure for the year ended 30th June, 1911, includes £636,153 transferred to the Public Works Fund. It is obvious that if this amount were not included in the expenditure, there would be an excess of revenue.

GENERAL BANKING ACCOUNT.

The following table indicates each of the main accounts under which the Government conducts its financial business, the subsidiary accounts being included under one or other of the headings enumerated. The Audit Act of 1902 and Amending Acts provide that the Treasurer may agree with any bank or banks for the transaction of the general business of the State. The accounts are kept under seven headings, viz., Consolidated Revenue Account, General Loan Account, Special Trust Account, Special Deposits Account, Closer Settlement Account, Public Works Account, and Railways Loan Account. All moneys paid into any of the accounts mentioned are deemed to be "public moneys," and for interest purposes the several accounts are treated as one account. The Special Trust Accounts, which consist principally of "Supreme Court Moneys," are not controlled by the Audit Act, as they are operated on directly by the officers in charge of the departments interested. The position of the main divisions of the General Banking Account on the 30th June, 1911, will be found in the following statement:—

Head of Account.	Ledger Balances on 30th June.		
	Invested in Securities.	Credit Cash Balances.	Total.
Special Deposits Account—	£	£	£
Commonwealth Government Fixed Deposit Account .. .. .	.....	1,000,000	1,000,000
Government Savings Bank Deposits Account .. .. .	.....	1,855,292	1,855,292
" " Advances Deposit Account .. .. .	.....	300,000	300,000
State Debt Commissioners' Trust Account .. .. .	.....	102,191	102,191
" Deposit Account.. .. .	.....	193,004	193,004
Other	534,064	297,118	831,182
Consolidated Revenue Account .. .. .	.....	401,506	401,506
Railways Loan Account .. .. .	.....	900,103	900,103
Colonial Treasurer's Supreme Court Moneys Accounts .. .. .	.....	241,245	241,245
Closer Settlement Account .. .. .	.....	514,842	514,842
Public Works Account .. .. .	.....	496,767	496,767
	£ 534,064	6,302,067	6,836,131
Less Debit Balance—			
General Loan Account .. .. .	.....	1,275,996	1,275,996
London Remittance Account .. .. .	.....	2,416,106	2,416,106
	£	3,692,102	3,692,102
Total Credit Balance in Sydney.. .. .	£ 534,064	2,609,965	3,144,029
Add—London Bank Account.. .. .	£ 1,030	2,415,076	2,416,106
Total	£ 535,094	5,025,041	5,560,135

The distribution of the cash balance on the 30th June, 1911, is set forth in the following table, the London accounts being shown to the latest date available before the closing of the Public Accounts for the financial year :—

Sydney Balance—30th June, 1911—	£	£	£
Special Deposits Account—Bank of New South Wales ..	2,242,810		
" " " Commercial Banking Company of Sydney (Ltd.)	1,504,795	3,747,605	
Consolidated Revenue Account—Bank of New South Wales ..	108,628		
" " " Commercial Banking Company of Sydney (Ltd.)	267,877		
" " " Cash in Treasury ..	25,000	401,505	
Closer Settlement Account—Commercial Banking Com- pany of Sydney (Ltd.) ..	.....	514,842	
Public Works Account—Bank of New South Wales ..	.....	496,767	
Special Accounts—Bank of New South Wales ..	.....	241,245	
Railways Loan Account—Bank of New South Wales ..	662,267		
" " " Commercial Banking Company of Sydney (Ltd.)	237,886	900,103	
<i>Less Debit Balances—</i>		6,302,067	
General Loan Account—Bank of New South Wales ..	1,058,235		
" " " Commercial Banking Company of Sydney (Ltd.)	217,761	1,375,996	
London Remittance Account—Bank of New South Wales ..	1,038,608		
" " " Commercial Banking Com- pany of Sydney (Ltd.) ..	1,377,498	2,416,106	
Total Cash in Sydney .. .. £	.....	.....	2,609,965
Total Cash in London .. .. £	.....	.....	2,415,076
Total .. .. £	.....	.....	5,025,041

Prior to 1906 the Public Accounts included all the invested assets of the Government Savings Bank. Upon the passing of the Government Savings Bank Act, 1906, these assets were vested in the Commissioners appointed under that Act, and are no longer included in the statements relating to the Public Accounts.

CONSOLIDATED REVENUE FUND.

It was difficult to obtain more than a general idea of the state of the finances during the existence of the old system of account-keeping which came to an end in 1895. Now that the system of keeping accounts on a cash basis is properly in operation, it is still necessary, in estimating the financial position of the State, to consider the Old Deficiency Account and the New Account under the Audit Act Amendment Act, which form the Consolidated Revenue Account, as well as the Loans Account and the various Trust Accounts not forming part of the Consolidated Revenue Account. The Old Deficiency Account proper began in 1885; but it was only in 1897, when the last obligation under the old system of account-keeping was met, that the position of this account for each year

could be accurately stated. Until all obligations had been met, only an approximation could be made, the accuracy of which rested on the correctness of the Treasurer's estimate of the liabilities outstanding for previous years.

The confusion which had attended the presentation of the public accounts of the State no longer exists now that operations on the Old Deficiency Accounts have been closed. The following table shows the Accumulated Deficiency on the Consolidated Revenue Account for each of the years since 1901. The Treasury Bills issued have been included in the statement, as they became part of the Consolidated Revenue Account proper :—

Year ended 30th June.	At the end of each Year.				
	Deficiency Bills Current.	Cash.		Debit Balance of Suspense Accounts.	Actual Accumulated Deficiency. †
		Credit.	Overdraft.		
	£	£	£	£	£
1901	1,872,447	.....	152,187	755,179	2,779,813
1902	2,477,626	.....	236,781	.....	2,714,407
1903	2,227,626	.....	494,356	.....	2,711,982
1904	1,977,626	.....	524,064	.....	2,501,690
1905	1,727,626	.....	336,891	.....	2,064,517
1906	1,814,516	896,124	.....	.....	918,392
1907	1,561,632	1,471,344	.....	.....	90,288
1908	1,214,516	1,676,924	.....	.....	*462,408
1909	914,516	637,678	.....	.....	276,838
1910	659,337	989,707	.....	.....	*330,370
1911	414,516	401,505	.....	.....	13,011

* Surplus.

† Includes cash balances not actually used in reduction.

Treasury Bills to the amount of £414,516 were current on the 30th June, 1911, and the credit balance of the Consolidated Revenue Fund was £401,505, leaving a deficiency of £13,011. The liability on account of these bills is being reduced by annual instalments of not less than £350,000. Should this arrangement be followed, and no other issues take place in the meantime, two years only will elapse before the debt will be extinguished.

The "Treasury Bills Deficiency Act, 1905," by which authority was given for the issue of Treasury Bills to liquidate the overdraft on the Consolidated Revenue, provides that, in the event of a surplus on the year's transactions of the Consolidated Revenue, the Treasurer shall pay to the State Debts Commissioners the sum of £50,000, with a view to extinguishing the liability of the Bills. This amount is in addition to that of £250,000 already made a charge on the revenue, for a similar purpose, by prior enactments.

REVENUE AND EXPENDITURE.

The gross and net revenue proper, as well as the net expenditure since 1904, were as follow :—

Year ended 30th June.	Gross Revenue (exclusive of Advances).	Refunds.	Net Revenue proper.		Net Expenditure, exclusive of Advances.	
			Total.	Per Inhabitant.	Total.	Per Inhabitant.
	£	£	£	£ s. d.	£	£ s. d.
1904	11,453,745	205,417	11,248,328	7 17 10	11,319,888	7 18 11
1905	11,514,324	177,406	11,336,918	7 16 1	11,195,075	7 14 2
1906	12,471,473	188,391	12,283,082	8 5 6	11,386,864	7 13 5
1907	13,570,380	177,945	13,392,435	8 16 7	12,799,797	8 8 10
1908	14,195,357	234,594	13,960,763	8 19 9	13,700,072	8 16 5
1909	13,844,642	219,571	13,625,071	8 12 6	14,692,168	9 6 1
1910	14,689,973	149,900	14,540,073	9 0 11	14,184,327	8 16 6
1911	13,977,777	138,638	13,839,139	8 8 9	14,443,691	8 16 2

Under the provisions of the Commonwealth of Australia Constitution Act, the control of Customs and Excise and the administration of the Post and Telegraph and Defence Departments were transferred to the Federal Government, the first-named on the 1st January, 1901, and the others on the 1st March, 1901. The Patents Office was transferred on the 1st June, 1904. The revenue derived from those sources, since the transfer, has been included only to the extent of the balance paid over to the State after deducting the expenditure incurred in connection with transferred services, and the proportion of other or new expenditure for which the State was liable.

The figures relating to revenue, both above and in subsequent tables, are exclusive of "Advances repaid"; and in dealing with expenditure, "Advances made" have been excluded from consideration, as transactions under these heads do not affect the ordinary revenue and the expenditure therefrom. The terms "net revenue" and "net expenditure," used both here and in subsequent pages, are to be taken as meaning revenue and expenditure freed from the transactions just mentioned as well as from refunds.

The apparently large increase in expenditure during the last five years is due to the transfers from the Consolidated Revenue Fund of large sums to the Public Works Fund and the Closer Settlement Fund. As the moneys so transferred are applied principally to public works previously charged to the General Loan Account, the practice means that smaller loans will be required, and the State will escape the interest and flotation charges. The advantages of the new system are obvious, and will be specially apparent when the current liability on Treasury Bills shall have been liquidated.

SOURCES OF REVENUE AND EXPENDITURE.

With a view of obtaining a proper conception of the sources from which the revenue is derived, and the objects upon which expenditure is made, the subjoined table has been prepared for the last four financial years.

In the table a separation has been effected between receipts and expenditure for purely Government purposes and for the business undertakings of the State. The figures are exclusive of advances made and repaid:—

REVENUE.		1908.	1909.	1910.	1911.
<i>Governmental.</i>		£	£	£	£
Revenue returned by Commonwealth	.. .. .	3,591,371	3,356,158	47,616	1,042,245
Taxation—					
Stamp Duties	.. .. .	585,242	506,708	872,922	625,841
Land Tax	.. .. .	178,889	80,794	9,066	7,438
Income Tax	.. .. .	215,283	202,369	219,977	269,142
Licenses	.. .. .	118,120	117,383	121,556	125,098
Total Taxation	.. .. .	£ 1,077,534	907,249	1,223,521	1,027,519
Land Revenue—					
Alienation	.. .. .	996,060	998,532	944,162	1,028,531
Occupation	.. .. .	619,426	628,333	640,638	683,916
Miscellaneous	.. .. .	169,899	151,137	145,540	176,470
Total	.. .. .	£ 1,784,394	1,778,002	1,729,740	1,888,917
Services rendered (other than Business Undertakings)	.. .. .	305,674	310,882	313,381	333,039
General Miscellaneous	.. .. .	348,475	274,600	358,550	318,971
Total Governmental	.. .. .	£ 7,107,448	6,626,891	6,972,808	5,460,691
<i>Business Undertakings of the State.</i>					
Receipts, Corporate Bodies—					
Railways and Tramways	.. .. .	5,978,060	6,132,918	6,664,236	7,412,127
Sydney Harbour Trust	.. .. .	327,579	334,604	337,454	374,280
Metropolitan Board of Water Supply and Sewerage	.. .. .	504,092	486,393	512,615	537,355
Hunter District Board of Water Supply and Sewerage	.. .. .	43,584	44,175	52,960	51,686
Total Business Undertakings	.. .. .	£ 6,853,315	6,998,180	7,567,265	8,378,448
Grand Total	.. .. .	£ 13,960,763	13,625,071	14,540,073	13,839,139
EXPENDITURE.					
<i>Governmental.</i>					
Interest on Public Debt and on Trust Funds (excluding proportion chargeable to the four corporate bodies)	.. .. .	730,043	755,058	807,929	801,754
Old-age and Invalidity and Accident Pensions and Administration	.. .. .	538,131	627,213	140,228	49,570
Other Pensions and Retiring Allowances	.. .. .	206,699	189,442	191,896	191,623
Elections Act Expenses (including Electoral Office)	.. .. .	40,066	4,648	*16,183	*35,604
Parliamentary Allowances and Postage	.. .. .	26,295	31,236	31,337	30,102
Local Government—					
Endowments to Municipalities	.. .. .	17,242	7,637	7,763	8,872
Endowments to Shires	.. .. .	169,865	198,136	274,062	286,442
Administration, &c.	.. .. .	9,980	3,715	71,125	711,914
Agricultural, Pastoral, and Horticultural Societies	.. .. .	19,627	18,096	19,611	21,889
Hospitals and Charities	.. .. .	330,114	343,961	353,331	373,470
Lunacy (including Master-in-Lunacy)	.. .. .	144,623	156,559	164,990	177,486
Public Instruction (including Reformatories and Grants to Educational and Scientific Institutions)	.. .. .	1,038,620	1,088,328	1,145,038	1,206,942
All other Services of the State	.. .. .	2,300,569	2,473,405	2,509,098	2,558,954
Total Governmental	.. .. .	£ 5,621,574	5,897,434	5,662,581	5,754,922
<i>Business Undertakings of the State.</i>					
Working Expenses—					
Railways and Tramways	.. .. .	3,503,905	3,872,865	4,292,070	4,808,991
Sydney Harbour Trust	.. .. .	90,336	104,208	108,192	119,531
Metropolitan Board of Water Supply and Sewerage	.. .. .	139,896	132,846	162,268	181,270
Hunter District Board of Water Supply and Sewerage	.. .. .	14,721	15,464	17,902	20,951
	.. .. .	£ 3,749,358	4,145,383	4,580,432	5,130,743
Interest on Capital—					
Railways and Tramways	.. .. .	1,781,153	1,825,936	1,839,584	1,950,951
Sydney Harbour Trust	.. .. .	187,907	179,419	178,020	187,722
Metropolitan Board of Water Supply and Sewerage	.. .. .	331,172	336,880	336,364	351,513
Hunter District Board of Water Supply and Sewerage	.. .. .	18,284	19,064	20,135	22,338
	.. .. .	£ 2,318,516	2,360,999	2,374,103	2,512,524
Total Business Undertakings	.. .. .	£ 6,067,874	6,506,382	6,954,535	7,643,267
Sinking Funds Instalments—Total	.. .. .	406,145	478,791	421,034	409,349
Public Works Fund—Transfers in Aid	.. .. .	1,404,479	809,561	911,177	636,153
Closer Settlement Fund—Transfers in Aid	.. .. .	200,000	1,000,000	235,000	.....
Grand Total	.. .. .	£ 13,700,072	14,692,168	14,184,327	14,443,691

* Electoral Office included in other services of the State.

† Excluding salaries which are incorporated with the Public Works Establishment.

The headings of Revenue and Expenditure shown on the previous page for the years ended 30th June, 1908 to 1911 are hereon repeated, and against each is given the rate per head of population:—

Heading.	Per Inhabitant.			
	1908.	1909.	1910.	1911.
REVENUE.				
<i>Governmental.</i>				
Revenue returned by Commonwealth	£ s. d. 2 6 3	£ s. d. 2 2 6	£ s. d. 2 1 8	£ s. d. 1 3 8
Taxation—				
Stamp Duties	0 7 3	0 6 5	0 10 11	0 7 8
Land Tax	0 2 4	0 1 0	0 0 1	0 0 1
Income Tax	0 2 9	0 2 7	0 2 9	0 3 3
Licenses	0 1 6	0 1 6	0 1 6	0 1 6
Total Taxation	0 13 10	0 11 6	0 15 3	0 12 6
Land Revenue—				
Alienation	0 12 10	0 12 8	0 11 9	0 12 6
Occupation	0 8 0	0 7 11	0 8 0	0 7 9
Miscellaneous	0 2 2	0 1 11	0 1 9	0 2 2
Total	1 3 0	1 2 6	1 1 6	1 2 5
Services rendered (other than Business Undertakings) ..	0 3 11	0 3 11	0 3 10	0 4 1
General Miscellaneous	0 4 6	0 3 6	0 4 6	0 3 11
Total Governmental	4 11 6	4 3 11	4 6 9	3 6 7
<i>Business Undertakings of the State.</i>				
Receipts, Corporate Bodies—				
Railways and Tramways	3 17 0	3 17 10	4 2 11	4 10 5
Sydney Harbour Trust	0 4 2	0 4 2	0 4 2	0 4 7
Metropolitan Board of Water Supply and Sewerage ..	0 6 6	0 6 1	0 6 5	0 6 6
Hunter District Board of Water Supply and Sewerage ..	0 0 7	0 0 6	0 0 8	0 0 8
Total Business Undertakings	4 8 3	4 8 7	4 14 2	5 2 2
Grand Total	8 19 9	8 12 6	9 0 11	8 8 9
EXPENDITURE.				
<i>Governmental.</i>				
Interest on Public Debt and on Trust Funds (excluding proportion chargeable to the four corporate bodies)	0 9 5	0 9 7	0 10 1	0 9 9
Old-age and Invalidity and Accident Pensions and Administration	0 6 11	0 7 11	0 1 9	0 0 7
Other Pensions and Retiring Allowances	0 2 8	0 2 5	0 2 5	0 2 4
Elections Act Expenses (including Electoral Office) ..	0 0 6	0 0 1	0 0 2	0 0 5*
Parliamentary Allowances and Postage	0 0 4	0 0 5	0 0 5	0 0 4
Local Government—				
Endowments to Municipalities	0 0 3	0 0 1	0 0 1	0 0 1
Endowments to Shires	0 2 2	0 2 6	0 3 5	0 3 6
Administration, &c.	0 0 2	.....	.....	0 0 2
Agricultural, Pastoral, and Horticultural Societies ..	0 0 3	0 0 3	0 0 3	0 0 3
Hospitals and Charities	0 4 3	0 4 4	0 4 5	0 4 7
Lunacy (including Master-in-Lunacy)	0 1 10	0 2 0	0 2 0	0 2 2
Public Instruction (including Reformatories and Grants to Educational and Scientific Institutions)	0 13 5	0 13 9	0 14 3	0 14 9
All other Services of the State	1 10 3	1 11 4	1 11 3	1 11 3
Total Governmental	3 12 5	3 14 8	3 10 6	3 10 2
<i>Business Undertakings of the State.</i>				
Working Expenses—				
Railways and Tramways	2 5 2	2 9 1	2 13 5	2 18 8
Sydney Harbour Trust	0 1 2	0 1 4	0 1 4	0 1 5
Metropolitan Board of Water Supply and Sewerage ..	0 1 10	0 1 11	0 2 0	0 2 3
Hunter District Board of Water Supply and Sewerage ..	0 0 2	0 0 2	0 0 3	0 0 3
Total	2 8 4	2 12 6	2 17 0	3 2 7
Interest on Capital—				
Railways and Tramways	1 2 11	1 3 2	1 2 11	1 3 10
Sydney Harbour Trust	0 2 5	0 2 3	0 2 2	0 2 3
Metropolitan Board of Water Supply and Sewerage ..	0 4 4	0 4 3	0 4 2	0 4 4
Hunter District Board of Water Supply and Sewerage ..	0 0 2	0 0 3	0 0 3	0 0 3
Total	1 9 10	1 9 11	1 9 6	1 10 8
Total Business Undertakings	3 18 2	4 2 5	4 6 6	4 13 3
Sinking Fund Instalments—Total	0 5 2	0 6 1	0 5 3	0 5 0
Public Works Fund—Transfers in Aid	0 18 1	0 10 3	0 11 4	0 7 9
Closer Settlement Fund—Transfers in Aid	0 2 7	0 12 8	0 2 11	.....
Grand Total	8 16 5	9 6 1	8 16 6	8 16 2

*Electoral Office included in other services of the State.

CLOSER SETTLEMENT FUND.

The Closer Settlement Fund was established under Act No. 9 of 1906. Most of the contributions have been received from the surplus moneys of the Consolidated Revenue Fund, although the balance at credit of the Assurance Fund Real Property Act, transferred at the inauguration of the Closer Settlement Fund, together with amounts since received, make up a total of £301,701.

Grants in aid were made from Revenue during each year to 1910; but no transfer was made during the financial year 1911.

The subjoined statement shows the receipts and expenditure for the financial year 1911:—

Receipts—	£	£	Expenditure—	£	£
Transfer from revenue...	Nil		Purchase of estates ...	455,773	
„ loans ...	350,000		Interest on loans ...	5,539	
Assurance fees, real property, &c. ...	12,266		Under Real Property Act ...	3,362	
Repayment by settlers...	73,252			464,674	
		435,518			
Balance brought forward from 1910 ...		543,£98	Balance carried forward to year 1912 ...		514,842
		£979,516			£979,516

The net receipts and expenditure from the inauguration of the fund, in September, 1906, to the 30th June, 1911, were as follow:—

Receipts—	£	£	Expenditure—	£	£
Transfers from Revenue Account ...	1,635,000		In purchase of estates ...	1,958,832	
„ Loan Account ...	350,000		Interest on loan moneys ...	27,747	
Fees, &c., under Real Property Act ...	305,373		Under Real Property Act ...	3,671	
Repayment and interest by settlers ...	215,531		Miscellaneous ...	2,442	
Miscellaneous ...	1,630			1,992,692	
		£2,507,534	Balance carried forward to year 1912 ...		514,842
					£2,507,534

PUBLIC WORKS FUND.

The Public Works Fund, which was opened in the year 1906, under the authority of the same statute which provided for the Closer Settlement Fund, is entitled to 53½ per cent. of the net proceeds of sales of Crown lands as credited to the Consolidated Revenue Fund, and the proceeds of land sales under the Public Instruction Act. Grants in aid are obtainable yearly from the revenue.

The following statement shows for the Public Works Fund the aggregate of the operations for the five years ended 30th June, 1911:—

Particulars.	Amount.	Head of Service.	Con- struction.	Renewals.	Total.
Receipts—	£	Net Expenditure—	£	£	£
Proportion of proceeds from sales of Crown lands	2,204,421	Railways and Tramways	266,025	.....	266, 2
Grants in aid	2,275,000	Public Buildings and Sites	1,753,689	145,090	1,898,779
Public Schools Property Fund	714	Water Supply and Sewerage	249,570	95,835	345,405
Sales of land, Public Instruction Act	7,618	Conservation of Water, Artesian Boring, &c.	260,018	6,707	266,725
		Roads and Bridges—			
		Construction	215,582		
		Renewals	99,510		
		Grants to Shires and Municipalities—			
		Construction	3,365		
		Renewals	190,348		
			218,947	289,858	508,805
		Harbours and Rivers.	549,077	9,196	558,873
		Observatory Hill Resumed Area (Rocks)	87,154	.....	87,154
		Sydney Harbour Trust .. ..	.....	58,620*	58,620
			3,385,680	605,306	3,990,986
		Balance carried forward to 1912..	.....	.....	496,767
	£ 4,487,753			£	4,487,753

* Expenditure on construction cannot be separated at present from renewals.

TAXATION.

License Fees, Land and Income Taxes, and Stamp Duties represent the various forms of taxation in force in the State. In the subjoined statement the gross revenue derived from each source during the period 1909-1911 is shown:—

Head of Revenue.	1909.	1910.	1911.
<i>Indirect Taxation—</i>	£	£	£
Licenses:—			
To retail fermented and spirituous liquors	85,417	85,494	85,355
Other	32,392	36,621	40,382
Total, Licenses	117,809	122,115	125,737
<i>Direct Taxation—</i>			
Income Tax	209,237	226,928	276,305
Land Tax	82,660	9,865	7,553
Total, Land and Income Tax..	291,897	236,793	283,858
Stamp Duties:—			
Impressed and adhesive stamps	157,081	174,846	224,067
Probate, Settlement, and Companies' Death Duties	301,681	650,202	357,750
Bank-note composition	34,193	33,900	38,982
Other	17,012	17,238	12,682
Total, Stamp Duties	509,967	876,186	633,481
Gross Revenue from Taxation	919,673	1,235,094	1,043,076
Refunds	12,424	11,573	15,557
Net Revenue from Taxation	907,249	1,223,521	1,027,519

The control of Customs and Excise having passed to the Commonwealth Government on the 1st January, 1901, the foregoing statement does not include any figures relating to the taxation thereunder. In a publication of this character, however, it is desirable that the actual amount to which the people of the State are subjected by way of taxation, whether direct or indirect, should be clearly set forth. In the following statement is shown in detail the net revenue derivable from each source of taxation for the decennial period ended 30th June, 1911, after deducting refunds, but not allowing for cost of collection :—

Year ended 30th June.	Indirect Taxation.			Direct Taxation.			Total Taxation.
	Customs.	Excise.	Licenses.	Income Tax.	Land Tax.	Stamp Duties.	
	£	£	£	£	£	£	£
1902	2,323,999	488,732	124,438	190,315	301,981	492,036	3,921,501
1903	2,861,710	617,032	122,409	199,159	314,104	473,109	4,587,523
1904	2,604,048	625,738	122,137	193,240	322,246	462,570	4,329,979
1905	2,390,735	642,882	122,606	195,252	323,267	473,283	4,148,025
1906	2,563,552	670,370	121,387	266,233	329,998	580,158	4,531,698
1907	2,845,786	727,527	118,819	283,422	345,497	633,567	4,954,618
1908	3,672,072	842,590	118,120	215,283	178,889	565,242	5,592,196
1909	3,465,950	797,756	117,383	202,369	80,794	506,703	5,170,955
1910	3,789,467	706,035	121,556	219,977	9,066	872,922	5,719,023
1911	*	*	125,098	269,142	†7,438	625,841	*

* Information not available.

† Exclusive of Federal land-tax.

A marked increase in the aggregate amount of taxation is disclosed in the foregoing table, ranging as it does from £3,921,501 in the year 1902 to £5,719,023 in the year 1910. The imposition of uniform customs and excise duties by the Commonwealth Parliament from the 9th October, 1901, largely contributed to this increase, and in the three last years there was a further increase in customs collections, due to the introduction of an amended tariff, as from 8th August, 1907, by which duties in most instances were increased largely as compared with the tariff of 1901.

There was a noticeable decrease, however, in the revenue derived from Income, Land, and Stamp Duty Taxation since 1907. This was due to amending legislation under Acts Nos. 7 and 8 of 1907, so far as Income Tax and Stamp Duties are concerned, whereby, from the 1st January, 1908, any income won by personal exertion, up to £1,000 a year, was exempt from direct taxation. Stamp duties on bills of exchange, promissory notes, drafts, and receipts have been repealed; but as shown subsequently, an amendment of the Income Tax Act in 1911 imposes a tax on incomes exceeding £300 per annum.

The decline in revenue from land tax is attributable to the operation of the Taxation Amending Acts of 1905 and 1906, and the Sydney Corporation (Amendment) Act of 1908, which provide for the allotment to Shires and Municipalities of land taxation collected within their area. These taxation Amending Acts are a necessary corollary to the Local Government Extension Act of 1906. As shown below, a land tax was levied by the Federal Government as from 1st July, 1910; but the particulars are not available, and therefore have not been included.

TAXATION PER INHABITANT.

The above figures would be incomplete without corresponding information respecting the taxation per head of population, which is set forth hereunder :—

Year ended 30th June.	Indirect Taxation.			Direct Taxation.			Total Taxation.
	Customs.	Excise.	Licenses.	Income Tax.	Land Tax.	Stamp Duties.	
	£ s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	£ s. d.
1904	1 16 7	8 9	1 9	2 8	4 6	6 6	3 0 9
1905	1 12 11	8 10	1 8	2 8	4 5	6 6	2 17 0
1906	1 14 7	9 0	1 7	3 7	4 5	7 10	3 1 0
1907	1 17 7	9 6	1 7	3 9	4 7	8 4	3 5 4
1908	2 7 4	10 10	1 6	2 9	2 4	7 3	3 12 0
1909	2 3 11	10 1	1 6	2 7	1 0	6 5	3 5 6
1910	2 7 2	8 9	1 6	2 9	0 1	10 11	3 11 2
1911	*	*	1 6	3 3	†	†	*

* Information not available.

† Exclusive of Federal Land Tax.

A comparison of the amount of taxation per head of population between this State and other countries is afforded in the following return. In comparing the amount of taxation per head in this State with other countries, it should not be overlooked that the rates of local bodies, such as Municipalities, Shires, Boards, Trusts, &c., have not been taken into consideration. Moreover, the conditions of the various foreign countries are different to those obtaining in New South Wales, and the only information available is that given in the periodical publications, which, as a rule, deal only with financial matters in a general way :—

Country.	State Taxation.	Federal Taxation.	Total.
	£ s. d.	£ s. d.	£ s. d.
New South Wales...	0 12 6	3 5 0	3 17 6
New Zealand ...	4 6 5	.....	4 6 5
Cape Colony ...	4 11 3*	.....	4 11 3
Canada—			
Quebec...	0 10 8	2 7 8	2 18 4
Ontario ...	0 11 2	2 7 8	2 18 10
United States of America—			
New York ...	1 7 0	1 8 0	2 15 0
Pennsylvania ...	0 15 7	1 8 0	2 3 7
Illinois... ..	0 7 1	1 8 0	1 15 1
Germany—			
Prussia... ..	0 10 2	1 2 3	1 12 5
Bavaria	1 3 3	1 2 3	2 5 6
France	3 2 7	.....	3 2 7
United Kingdom ...	3 7 7	.....	3 7 7
Italy... ..	1 9 5	.....	1 9 5
Belgium	1 5 10	.....	1 5 10

* Information not available.

† Exclusive of Federal Land Tax.

The amount shown for Federal taxation in New South Wales (£3 5s.) represents the average for the Commonwealth, as the figures for each State are not shown separately for 1911; but there is no doubt that the average for this State is higher than the general average, if the amounts for previous years be compared.

With regard to the Land Tax, it should also be pointed out that New South Wales contributed practically half of the total collections.

The figures for the provinces of Canada and the different States of America are approximate only; but they have been calculated from the latest available particulars, and are probably understated.

REVENUE FROM LICENSES.

The receipts from licenses show very little fluctuation from year to year, although those from licenses to retail fermented and spirituous liquors, &c., have declined during the last five years, the result, apparently, of the recent liquor legislation. The amount received during the year ended 30th June, 1911, under the different heads, was as follows:—

Licenses.	Amount.	Licenses.	Amount.
	£		£
Wholesale spirit dealers ...	5,370	Metropolitan Traffic Act ...	3,218
To retail fermented and spirituous liquors, including wine, cider, and perry ...	85,355	Motor Traffic Act ...	4,490
Billiard and bagatelle ...	8,399	Gaming and Betting Act, 1906...	1,125
Auctioneers ...	6,782	All other ...	3,030
Hawkers, pedlars, and pawnbrokers	3,314		125,737
Explosives Act of 1905 ...	1,176	Refunds ...	639
Sale of tobacco and cigars...	3,478	Total net Receipts ...£	125,098

Land occupation licenses and licenses in regard to mining occupation, also licenses issued under the Fisheries and Forestry Acts, are not included in the table.

LAND AND INCOME TAXATION.

The land tax of the State is levied on the unimproved value at the rate of 1d. in the £. A sum of £240 is allowed by way of exemption, and where the unimproved value is in excess of that sum a reduction equal to the exemption is made; but where several blocks of land within the State are held by a person or company, only one amount of £240 may be deducted from the aggregate unimproved value. In cases where land is mortgaged, the mortgagor is permitted to deduct from the tax payable a sum equal to the income-tax paid by the mortgagee on the interest derived from the mortgage of the whole property, including improvements. The lands exempt from taxation comprise Crown lands not subject to the right of purchase, or held under special or conditional lease, or as home-stead selections; other lands vested in the Crown; lands vested in the Railway Commissioners; lands belonging to or vested in local authorities; public roads, reserves, parks, cemeteries, and commons; lands occupied as public pounds, or used exclusively for or in connection with public hospitals, benevolent institutions, and other public charities, churches, and chapels; the University and its affiliated colleges, the Sydney Grammar School, and mechanics' institutes and schools of art; and lands dedicated to and vested in trustees and used for zoological, agricultural, pastoral, or horticultural show purposes, or for other public or scientific purposes.

Under the Local Government Act, 1906, when the Council of a shire or municipality makes and levies a general rate, not less than 1d. in the £ on the unimproved value of land within its area, land tax ceases to be collected by the State therein. A similar provision now extends to the City of Sydney under the operation of the Sydney Corporation (Amendment) Act, 1908.

Up to the year 1911, when new legislation was passed, an income-tax of 6d. in the £ was imposed upon so much of every income as was in excess of £1,000, if the income was derived by personal exertion, otherwise the

exemption was only £200. Incomes were altogether exempt which were derived from the ownership or use or cultivation of land upon which land-tax was payable. The exemptions included the revenues of local authorities, the income of life assurance societies, and of other societies and companies not carrying on business for purposes of profit or gain, and not being income derived from mortgages; the dividends and profits of the Savings Bank of New South Wales and the Government Savings Bank; the funds and income of registered friendly societies and trades unions; the incomes and revenues of all ecclesiastical, charitable, and educational institutions of a public character; and income accruing to foreign investors from Government Stock. The regulations provided that, in the case of every company, its income should be taken as the income of the company in New South Wales and from investments in the State. Public companies were not allowed the exemption of £200.

The variations in regard to the number and amount of incomes which were liable to taxation are shown in the following table, which relates to the last thirteen years:—

Year.	Number of Incomes.	Net Income.	Year.	Number of Incomes.	Net Income.
		£			£
1899	19,775	11,123,343	1906	23,832	14,937,906
1900	20,051	12,140,569	1907	24,091	16,410,484
1901	19,991	12,065,842	1908	5,933	8,851,026
1902	20,299	12,127,129	1909	5,442	7,753,851
1903	22,234	13,415,760	1910	5,810	9,566,920
1904	22,299	12,482,094	1911	5,846	11,095,863
1905	22,814	13,769,828			

The number of incomes taxed in the last four years is very much reduced, for the reason given above, and the figures quoted for these years in the statement are exclusive of incomes from personal exertion under £1,000, which, under an Act passed in 1907, were exempt from taxation.

A distribution of the incomes subject to taxation according to the amounts taxable is set forth in the following statement. The particulars are based on the experience of the nine years ended 30th June, 1907, the subsequent years being excluded, as the source of taxation was restricted considerably. These, however, represent only a portion of the incomes derived from New South Wales, as incomes derived from land, or the use and occupancy of land, are not taxable. The net earnings are given in the table:—

Categories.	Average of Nine Years.		Proportion in each category.	
	Number of Incomes.	Amount of Incomes.	Of Number of Incomes.	Of Amount of Incomes.
		£	per cent.	per cent.
£200 and under £250...	6,371	1,430,269	29·60	11·00
250 „ 300...	4,074	1,109,310	18·93	8·54
300 „ 400...	4,140	1,416,527	19·23	10·90
400 „ 500...	2,028	904,974	9·42	6·96
500 „ 700...	1,949	1,126,764	9·06	8·67
700 „ 1,000...	1,200	984,712	5·57	7·58
1,000 „ 1,200...	392	426,930	1·82	3·29
1,200 „ 2,000...	708	1,068,940	3·29	8·23
2,000 „ 5,000...	462	1,354,765	2·15	10·43
5,000 „ 10,000...	122	819,303	0·57	6·31
10,000 „ 20,000...	47	643,381	0·22	4·95
20,000 and upwards ...	31	1,707,889	0·14	13·14
Total ...	21,524	12,993,764	100·00	100·00

A comparison of the incomes assessed for the years 1908 and 1911 is afforded in the subjoined statement, in which the amounts are given in various grades:—

Grade.	1908.		1911.	
	Number.	Net Income.	Number.	Net Income.
		£		£
£1 to £1,000	4,723	1,042,468	4,261	1,118,623
1,001 „ 1,200	139	151,849	173	190,698
1,201 „ 2,000	364	562,069	462	718,943
2,001 „ 5,000	378	1,168,614	542	1,660,591
5,001 „ 10,000	180	1,235,745	213	1,474,850
10,001 „ 20,000	89	1,203,870	114	1,613,656
20,001 and upwards... ..	60	3,486,411	81	4,318,502
Total	5,933	8,851,026	5,846	11,095,863

INCOME TAX ACT, 1911.

The Act relating to income-tax was amended in 1911 by the enactment of the Income Tax Act, 1911. Under its provisions a tax is payable by all persons other than companies on incomes, exceeding £300 per annum, derived from all sources within New South Wales. In the case of companies, the total incomes are taxable. A taxpayer is allowed a deduction of £50 in respect of each child under 18 years of age wholly maintained by him, and insurance premiums up to £50 are exempt.

The tax payable by any company is 1s. 2d. in the £, and the rates per £ for persons other than companies are as follows:—

So much of income chargeable—

As does not exceed £700 ... ..	...	...	...	6d.
As exceeds £700 and does not exceed £1,700 ... ..	...	...	...	7d.
„ £1,700 „ „ £2,700 ... ..	...	...	...	8d.
„ £2,700 „ „ £4,700 ... ..	...	...	...	9d.
„ £4,700 „ „ £6,700 ... ..	...	...	...	10d.
„ £6,700 „ „ £9,700 ... ..	...	...	...	11d.
„ £9,700 ... ..	...	...	...	12d.

In each case an addition of one-third of tax is made to tax where person liable is an absentee, and of one-third on such income as is not derived from personal exertion.

The following incomes are exempt from income-tax, viz.:—

- The revenues of municipal corporations or other local authority.
- The incomes of mutual life assurance societies and of other companies or societies not carrying on business for purposes of profit or gain, except income from mortgages.
- The funds and incomes of societies registered under the Friendly Societies Act or under any Act relating to trade unions.
- The incomes and revenues of all ecclesiastical, charitable, and educational institutions of a public character, whether supported wholly or partly by grants from the Consolidated Revenue Fund or not.
- Income arising or accruing to any person not resident in New South Wales from Government debentures, inscribed stock, and Treasury bills.

These exemptions do not extend to the salaries and wages of persons employed by any such corporation, company, society, or institution, although the same be paid wholly or in part out of the income, revenues, or funds thereof.

REVENUE FROM LAND AND INCOME TAXES.

The revenue from land and income taxes since 1896, the year in which they were first imposed, is shown hereunder. The amounts exclude refunds rendered necessary through correction of errors by the taxpayer or adjustments by the Department, but include refunds brought about through the income of the year of assessment falling short of the amount of income of the preceding year on which the assessment was made; a provision which was repealed by the "Land and Income Tax Amendment Act, 1904" :—

Year.	Land Tax.	Income Tax.	Year.	Land Tax.	Income Tax.
	£	£		£	£
1896	.....	27,658	1904	322,246	193,240
1897	139,079	295,537	1905	323,267	195,252
1898	364,131	166,395	1906	329,998	265,233
1899	253,901	178,032	1907	345,497	283,422
1900	286,227	183,460	1908	178,889	215,283
1901	288,369	215,893	1909	80,794	202,369
1902	301,981	203,625	1910	9,066	219,977
1903	314,104	214,686	1911	7,438*	263,142

* Exclusive of Federal land-tax.

The fluctuations shown in the first three years are due to the difficulties inseparable from the introduction of a system of direct taxation; the returns for 1899 and subsequent years, however, are under normal conditions, which have been varied recently, as already shown, by the increased exemption for the majority of taxpayers, in the case of the income tax, and by the transfer to shires and municipalities of the land tax.

The Federal Government have levied a graduated tax on the unimproved value of the lands of the Commonwealth, as from the 1st July, 1910. In the case of owners who are not absentees, an amount of £5,000 is exempt, and the rate of tax ranges from 1d. for £1 of value in excess of that amount, and increases uniformly with every £1 of value to 6d. in the £ on estates having a taxable value of £75,000 and over. Absentee owners are required to pay 1d. in the £ up to £5,000, ranging to a maximum of 7d. on estates valued at £80,000 and upwards. Lands owned by a state, municipality, or other public authority, by savings banks, friendly societies, trades unions, or used solely for religious, charitable, or educational purposes, &c., are not taxable.

LAND REVENUE.

The receipts from the sale and occupation of Crown land are treated as public income. While the proceeds from occupation, being rent, can be reasonably regarded as an item of revenue, the inclusion of the proceeds of auction, conditional purchase, and other classes of sale in the ordinary revenue is open to serious objection. It has been urged in justification of the course that the sums so obtained have enabled the Government either to construct works, which enhance the value of the remaining public lands and facilitate settlement, or to endow municipalities, and thus enable them to carry out local works. Under the Act passed in 1906, instituting the Public Works Fund previously mentioned, two-thirds of the net proceeds of the sale of Crown Lands, less 20 per cent., equivalent to a clear 53½ per cent., are paid to that fund.

The revenue derived from lands may be grouped under three main heads—(a) auction sales and other forms of unconditional sale; (b) conditional sales or lands disposed of under the system of deferred payments; (c) rents from pastoral, mining, and other classes of occupation. The first two sources have been amalgamated under the head of Alienation; while the last is classed as Occupation.

More than half the annual receipts from land are obtained from alienation, as will be seen from the following table, which gives in detail the revenue from 1908 to 1911 :—

Head of Revenue.	1908.	1909.	1910.	1911.
<i>Alienation—</i>				
Sales, etc. :—	£	£	£	£
Auction sales	90,986	79,576	77,055	83,058
Other	10,048	13,077	11,263	15,935
Total... ..	101,034	92,653	88,318	98,993
<i>Conditional Purchases :—</i>				
Deposits and improvements	78,866	93,060	64,236	135,392
Installments and interest	579,161	551,141	538,175	537,226
Interest (under Act of 1861)	25,756	25,194	22,200	21,614
Balances	156,531	183,861	174,495	186,592
Homestead Selections	75,179	72,856	71,624	62,917
Total... ..	915,493	926,112	870,730	943,741
Total, Alienation	1,016,527	1,018,765	959,048	1,042,734
<i>Occupation—</i>				
<i>Pastoral :—</i>				
Pastoral leases	2,779	829	756	749
Conditional leases	206,016	207,918	204,965	199,214
Occupation licenses	40,484	35,080	31,533	29,871
Homestead leases	4,498	2,226	1,555	1,688
Annual and Snow leases	48,477	42,982	38,152	34,297
Settlement leases	103,120	109,076	115,561	106,736
Improvement leases	49,018	51,997	50,712	49,501
Western Land Division leases	65,521	74,758	79,517	82,265
Other leases	29,332	37,122	49,644	43,736
Total... ..	549,245	561,988	572,395	548,057
<i>Mining :—</i>				
Mineral leases	19,142	17,347	20,706	17,490
Leases of auriferous lands	2,174	1,680	2,310	2,544
Miners' rights	3,636	3,259	3,184	2,913
Royalty on minerals	69,912	66,542	59,373	77,613
Other	12,004	9,495	10,689	10,019
Total... ..	106,868	98,323	96,262	110,579
Total, Occupation	656,113	660,311	668,657	658,636
<i>Miscellaneous Land Receipts—</i>				
Survey fees	50,456	45,177	28,883	30,823
Rents, special objects	33,428	36,265	40,485	43,490
Timber licenses, royalty, etc....	54,205	55,041	60,508	84,460
Quit rents and other receipts	49,979	37,432	35,009	35,964
Total... ..	188,068	173,915	164,885	194,737
Gross Revenue from Lands	1,860,708	1,852,991	1,792,590	1,896,107
Refunds	76,314	74,989	62,850	57,190
Net Revenue from Lands	1,784,394	1,778,002	1,729,740	1,838,917

The gross revenue derived from alienation and occupation, and the gross and net land revenue, from 1902 to 1911, were as follows:—

Year ended 30th June.	Alienation.		Occupation.		Gross Revenue from Lands.	Refunds.	Net Revenue from Lands.
	Sales, etc.	Conditional Purchases and Homestead Selections. *	Pastoral. †	Mining, etc. ‡			
	£	£	£	£	£	£	£
1902	120,202	1,173,090	694,099	70,286	2,057,677	56,103	2,001,574
1903	119,770	1,008,998	658,696	83,227	1,870,691	65,464	1,805,227
1904	117,518	1,058,345	661,904	98,194	1,935,961	75,391	1,860,570
1905	102,316	1,005,839	636,057	101,255	1,845,467	84,440	1,761,027
1906	95,582	1,049,796	546,904	128,318	1,820,600	87,526	1,733,074
1907	104,780	1,098,716	600,885	154,990	1,959,371	75,315	1,884,056
1908	101,034	965,949	632,652	161,073	1,860,708	76,314	1,784,394
1909	92,653	971,289	635,685	153,364	1,852,991	74,989	1,778,002
1910	88,318	899,613	647,889	156,770	1,792,590	62,850	1,729,740
1911	98,993	974,564	627,511	195,039	1,896,107	57,190	1,838,917

* Includes Survey Fees. † Includes all Miscellaneous Receipts except Survey Fees and Timber Licenses.
‡ Includes Timber Licenses.

The land policy of the State, though largely connected with public finance, has been more fully discussed in the part of this work dealing with land settlement.

The reappraisalment of the leases in the Western Division, under the provisions of the Western Lands Act of 1901 caused a considerable shrinkage in revenue. Radical reductions were necessary to prevent the abandonment of enormous tracts of country, which would thereby become worse than non-productive, inasmuch as they would form breeding-grounds for rabbits and other noxious animals. The loss of revenue, however, will be counterbalanced by the benefit resulting from the occupation of this large territory, under conditions which will encourage enterprise and the expenditure of capital in the proper development of the country, and in effectually coping with the rabbit scourge.

As a result of the reappraisalment of conditional purchases and conditional leases, made under the Crown Lands (Amendment) Act of 1899, the revenue from these lands also has been considerably reduced.

RECEIPTS FROM BUSINESS UNDERTAKINGS OF THE STATE.

The receipts from the Railways and Tramways and from Water Supply and Sewerage comprise the greater part of the revenue received from services, the balance under this heading being made up chiefly of dues and fees of various kinds.

After making provision for working expenses and interest on loan capital, the Railways and Tramways, during the financial year 1910-1911, produced a surplus of £646,185; the Sydney Harbour Trust had a surplus of £66,495; while the operations of the Metropolitan Board of Water Supply and Sewerage and the Hunter District Water Supply and Sewerage Board showed a surplus of £4,572 and £11,396 respectively, giving a total surplus revenue on all the business undertakings of the State of £728,648 during the last financial year.

The following statement shows the results since the year 1906-7 of working of the business undertakings of the State, comprising the Railways and Tramways, Sydney Harbour Trust, Metropolitan District Water Supply and Sewerage, and the Hunter District Water Supply and Sewerage Board:—

Year ended 30th June.	Receipts.	Expenditure. (Cost of Working and Interest Paid on Loan Capital.)	Excess Receipts.
	£	£	£
1907	6,433,476	5,673,952	759,524
1908	6,853,315	6,067,874	785,441
1909	6,998,180	6,506,382	491,798
1910	7,567,265	6,954,535	612,730
1911	8,378,448	7,649,800	728,648
Total, Excess Receipts...			£ 3,378,141

The income derived by the Government from business undertakings has, with little interruption, been steadily increasing; this, however, is only what would naturally be expected in a growing community. On a previous page will be found the rates per inhabitant for the last four years, which show that the revenue per head in 1910-11 was £5 2s. 2d., as compared with £4 8s. 3d. in 1907-8. The increase in the return from services is undoubtedly largely due to the construction of railways and tramways, from which over 88 per cent. of such revenue was derived during 1910-11. Compared with the population, the income derived from the services of the State is enormous.

With the exception of 141½ miles of private railways, 6½ miles of private tramways, and a number of short lines, in extent 135½ miles, in mining districts connecting the mines with the main lines, all railways and tramways within the State belong to and are controlled by the Government.

RECEIPTS FOR SERVICES RENDERED.

Information in detail for the year 1910-11, as to the amount collected for services rendered by the State; other than for business undertakings, is shown in the following statement:—

Heading.	Gross Revenue.	Refunds.	Net Revenue.
	£	£	£
Fees and charges—			
Agricultural Colleges and Farms	6,417	119	6,298
Pilotage, Harbour Dues, and Fees—	£		
Pilotage	43,856		
Harbour and Light Rates	41,331		
Harbour Dues	7,306		
Navigation Department—Fees, &c.	4,009		
	96,502	161	96,341
Mint Receipts	11,252	.....	11,252
Fees for Escort and Conveyance of Gold	240	.....	240
Public Instruction Department—School and Training Fees	2,288		
Registration of Brands	1,858		
Fees of Office —			
Registrar-General and Examiner of Patents	73,463		
Courts of Petty Sessions	21,758	563	135,085
Curator of Intestate Estates	3,040		
Shipping Masters	5,247		
Fees for Registration of Dogs	15,751		
Presenting Bills to Parliament	105		
Other Fees	12,143		
Rent for Public Watering-places, Tanks, &c.	6,111		
For the support of Patients in Hospitals for Insane	31,970		
Store Rent and carriage of Gunpowder... ..	11,265		
For Work performed by Prisoners in Gaol	1,456	1,068	83,823
For the support of Children in the Industrial Schools, and Inmates of Benevolent Asylums, &c.	5,723		
Other Receipts	28,366		
Total Receipts for Services Rendered	£ 334,955	1,916	333,039

Up to the 30th June, 1906, public school fees amounted annually to about £80,000. In October, 1906, fees in primary and superior public schools were abolished under the Free Education Act, 1906; and from January, 1911, the tuition in High Schools has also been free; so that the revenue consisting of the fees from the Teachers' Training College and for the half-year only from High Schools is inconsiderable in amount.

GENERAL MISCELLANEOUS RECEIPTS.

All items which cannot be placed rightly under one of the great classes (Taxation, Land Revenue, Business Undertakings of the State, and Receipts for Services rendered) are grouped under the heading of "General Miscellaneous Receipts." The gross amount received under each head of revenue during the financial year 1910-11, as also the balance of revenue collected within the State by the Commonwealth Government and returned, is shown in the subjoined statement:—

Head of Revenue.	Gross Revenue.	Refunds.	Net Revenue.
	£	£	£
Rents, &c. (exclusive of Land)—			
Wharfage and Tonnage Rates, &c. (Outports)...	6,791	79	17,925
Government Buildings and Premises ...	11,213		
Water Rights Receipts ...	336		
Darling Harbour Resumed Area...	50,118	1	50,117
Public Service Superannuation Act, No. 8 of 1903 ...	14,295	1	14,294
Interest on Public Moneys—			
Interest on Advances under Country Towns Water Supply and Sewerage Act ...	28,558	2	28,556
Interest on Bank Deposits and other Temporary Investments of Public Moneys ...	36,101	36,101
Interest on Water and Drainage Works, &c. ...	5,186	5,186
„ Sale of Wire-netting...	3,166	3,166
„ Accrued on State Loans ...	2,311	2,311
„ Other ...	1,423	1,423
Fines and Forfeitures—			
Sheriff ...	1,076	149	26,024
Courts of Petty Sessions ...	24,506		
Confiscated and Unclaimed Property ...	26		
Other Fines ...	565		
Repayments—			
Repayment to Credit of Votes—Previous years ...	32,043	4,867	133,532
Value of Materials issued by Government Stores—			
Department ...	2,188		
Seed Wheat—Previous years ...	1,749		
Annandale Garbage Destructor—Repayment ...	238		
Exchange on Cheques ...	746		
Sale of Government Property ...	12,546		
Receipts under Fisheries Act ...	8,046		
Pastures Protection Act—Contributions towards administering ...	1,852		
Sydney Abattoirs—Surplus Revenue ...	3,500		
Costs Recovered in Various Actions ...	1,277		
Sydney Corporation Amendment Act, No. 27 of 1908—	£		
Pymont Bridge and Approaches—Control, maintenance, and interest ...	7,300		
Regulation of City Traffic ...	7,500		
Salaries of Medical Officer and Sanitary Inspector ...	1,600		
Centennial Park Land Sales ...	9,500		
Westworth Irrigation Area—Rent, Water Rates, &c. ...	713		
Rent and Way-leave—Port Kembla Jetty ...	4,116		
Right of Depasturing Cattle in Domain, 1910 ...	33		
Discount on Drafts purchased in London ...	20,500		
Unclaimed Moneys ...	449		
Balances—Curator of Intestate Estates ...	13,061		
Other Unclassified Receipts...	9,442		
Total General Miscellaneous Receipts ...	324,070	5,099	318,971
Balance of Revenue collected within the State by the Commonwealth Government and returned ...	£ 1,942,245	1,942,245

EXPENSES OF GENERAL GOVERNMENT.

In the figures already given regarding the revenue of the State, the amount received on account of the business undertakings of the State—that is, the earnings of the railways, the tramways, the boards of water supply and sewerage, and the Sydney Harbour Trust—are included in the general revenue. In consequence of this system the annual cost of maintaining the services referred to is also included in the expenditure.

The following statement shows the progress of expenditure as classified under two headings—ordinary expenditure of general government, including interest on capital liability of services connected therewith; and expenditure on services practically outside the administration of general government, such as railways, tramways, water supply and sewerage, and the Sydney Harbour Trust, and the interest on capital liability of the services enumerated. The figures for the six years ended 30th June, 1911, and the rates per inhabitant, are as follow:—

Year ended 30th June.	Total Net Expenditure.							
	Governmental.				Business Undertakings.			
	Public Instruction.	Interest and Redemptions.	Other Services.	Total.	Railways and Tramways.	Water Supply and Sewerage.	Sydney Harbour Trust.	Total.
	£	£	£	£	£	£	£	£
1906	938,640	938,398	4,188,350	6,065,388	4,616,305	443,916	261,255	5,321,476
1907	946,044	907,026	5,272,776	7,125,846	4,938,523	471,133	264,295	5,673,951
1908	1,038,620	730,043	5,863,535	7,632,198	5,285,058	504,073	278,743	6,067,874
1909	1,088,328	755,058	6,342,400	8,185,786	5,698,801	524,254	283,327	6,506,382
1910	1,145,038	807,929	5,276,825	7,229,792	6,131,654	536,669	286,212	6,954,535
1911	1,206,942	801,754	4,791,728	6,800,424	6,759,942	576,072	307,253	7,643,267

Net Expenditure per Inhabitant.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1906	0 12 8	0 12 8	2 16 5	4 1 9	3 2 3	0 5 11	0 3 6	3 11 8
1907	0 12 6	0 12 0	3 9 6	4 14 0	3 5 2	0 6 2	0 3 6	3 14 10
1908	0 13 5	0 9 5	3 15 5	4 18 3	3 8 1	0 6 6	0 3 7	3 18 2
1909	0 13 9	0 9 7	4 0 4	5 3 8	3 12 3	0 6 7	0 3 7	4 2 5
1910	0 14 3	0 10 1	3 5 8	4 10 0	3 16 4	0 6 8	0 3 6	4 6 6
1911	0 14 9	0 9 9	2 18 5	4 2 11	4 2 6	0 7 1	0 3 8	4 13 3

Under the heading of the expenses of general government are included civil and legal expenditure, and the cost of Education and such public works as are constructed out of the ordinary revenue, as also the interest payable where the proceeds of loans have been used to defray the cost of their construction, together with the sinking fund instalments. The expenditure per head of population on account of some of these services, viz., educational and others of less importance, had either been stationary or declining until the year 1906-7, when there was a considerable increase in the cost of public instruction. The increase in other services during the last five years, as previously explained, is due to the transfers from the Consolidated Revenue in aid of the Public Works and Closer Settlement Funds.

TRUST FUNDS AND SPECIAL DEPOSITS.

The Trust Funds and Special Deposits form a very important division of the public finances, not only from the nature of the transactions and the volume of accumulated funds, but also by reason of the manner in which the accounts are operated upon in conjunction with the general finances of the State. To show the importance of the Account, the following table has been compiled.

Year ended 30th June.	Amount.	Year ended 30th June.	Amount.	Year ended 30th June.	Amount.
	£		£		£
*1871	213,340	1900	10,103,940	1906	10,007,626
*1876	854,571	1901	10,823,128	1907	2,359,665
*1881	1,671,183	1902	11,720,889	1908	1,867,442
*1886	2,702,486	1903	10,564,026	1909	2,575,757
*1891	4,997,055	1904	10,191,160	1910	2,743,156
1896	7,657,741	1905	10,562,513	1911	4,522,915

* Year ended 31st December.

The decreased amounts shown for the last five years are due to the removal of the securities belonging to the Government Savings Bank to the control of the Savings Bank Commissioners. As these securities are no longer vested in the Colonial Treasurer they are excluded from the Public Accounts.

The Trust Funds under the supervision of the Colonial Treasurer are divided into two classes, viz.:—Special Deposits Account and Special Accounts. The first class includes the Savings Bank of New South Wales Deposit, the State Debt Commissioners' Trust Account, the Sydney Municipal Council Sinking Funds, Railways and Public Works Store Advance Account, Fixed Deposit Account, and various smaller items. The Special Accounts consist wholly of the Colonial Treasurer's Supreme Court Accounts, and are under the control of the officers of the Court.

The total of all moneys under these headings on the 30th June, 1911, was £4,522,915—£4,281,670 as Special Deposits Account and £241,245 as Special Accounts. Of the Special Deposits Account, the largest items were:—Commonwealth Government Fixed Deposit Account, £1,000,000; Government Savings Bank Deposit Account, £1,855,292; Government Savings Bank Advances Account, £300,000; State Debt Commissioners' Deposit Account, £193,004; State Debt Commissioners' Trust Accounts, £102,191; Public Works Department Store Advance Account, £87,675; Fixed Deposits Account, £250,100; Railway Store Account, £134,455; Sundry Deposits Account, £184,041; and Municipal Council of Sydney Sinking Funds, £60,427. The balance of £114,485 comprises items which are each under £20,000 in amount. The Special Accounts were Supreme Court moneys, which amounted to £241,245.

The existence of a large account upon which the Treasury was free to operate has been of great assistance to the Consolidated Revenue in times past, the Trust Funds forming a strong reserve on which the Government drew in time of need. The great bulk of the funds bore interest, whether invested or not; but the power to use those funds enabled the Government to effect a large saving of the interest, which would have been charged for accommodation from the banks.

Of the total sum of £4,522,915 at credit of the Trust Funds on 30th June, 1911, £34,064 were invested in securities; £3,796,041 were uninvested, but used in Advances and on Public Account at interest; while the remainder, £692,810, was similarly used, but without interest charge.

With the exception of the sum deposited in the Treasury by the Savings Bank of New South Wales, which was invested at $3\frac{1}{2}$, $3\frac{3}{4}$, and 4 per cent., a general rate of 4 per cent. was allowed to 31st December, 1894, on all funds entitled to interest. On the 1st January, 1895, the rate was reduced to 3 per cent. on all accounts except those on which the old rates could not be altered till the terms of the existing arrangements had expired. The rate of interest now paid is 3 per cent., with the following exceptions:—Crown Leases Security Deposit Account, $3\frac{1}{2}$ per cent.; Government Savings Bank Deposit Account, $3\frac{1}{2}$ and $3\frac{3}{4}$ per cent.; Fixed Deposits, $3\frac{3}{4}$ per cent.; the Sinking Funds of the Municipal Council of Sydney (50 Vic. No. 13), 4 per cent.; the Master in Equity and Master in Lunacy Accounts, 1 per cent.; Curator of Intestate Estates and Registrar of Probates Accounts, 2 per cent.

On the 30th June, 1911, the Trust Funds in the custody of the Colonial Treasurer were held thus:—

	£
In Banks at current account	3,988,851
In New South Wales Funded Stock	14,500
In miscellaneous securities.	519,564
Total	£4,522,915

The total amount of interest received by the Treasury during the year ended June, 1911, on bank deposits and other temporary investments, was £36,101, of which part was earned by moneys belonging to the Trust Account.

All Trust Funds under the Audit Act remaining unclaimed for a period of two years, and balances of intestate and probate estates unclaimed after a lapse of six years, are transferred and surrendered to the Consolidated Revenue, and no person may legally claim moneys so vested; nevertheless, the Treasury invariably recognises and pays in all cases where an otherwise valid claim can be shown.

Under the provisions of the State Debt and Sinking Fund Act, 1904, a Board called the "State Debt Commissioners," was constituted, consisting of the State Treasurer, the Chief Justice, the Speaker of the Legislative Assembly, and the Under Secretary to the Treasury, to administer, from the 1st July, 1905, various Trust Accounts and balances at credit of certain Special Accounts. The Sinking Funds created by the Loan Acts of 1894 (No. 2), 1895, 1896, 1897, 1898, and 1899 were also transferred to, and are administered by, the Commissioners.

LOAN APPROPRIATIONS.

All items of expenditure to be met by loan are authorised under an Appropriation Act, in the same manner as the ordinary expenditure chargeable to the general revenue, and under the Inscribed Stock Act of 1883 (46 Vic. No. 12), the passing of the Loan Estimates confers the power of raising the money required without the necessity of a special Loan Act. There is a further restriction to the expenditure of money, whether from loans or revenue, in the operation of the Public Works

Act of 1888. Under the provisions of this Act, the question of the propriety of constructing all works estimated to cost more than £20,000, except those connected with the maintenance of Railways, is referred by resolution of the Legislative Assembly to the Parliamentary Standing Committee appointed during the first Session of each Parliament. The Committee investigates and reports to Parliament, and the Assembly declares whether it is expedient to carry out the proposed work; if the declaration be favourable, a Bill based thereon must be passed before the authorisation is absolute.

The principle of redemption from revenue was applied, under the Loan Acts of 1894 to 1899, to expenditure on works whose value will disappear by the time the loan, out of the proceeds of which they were constructed, falls due.

The Loan Appropriations, in quinquennial periods since 1875, are given in the subjoined table, the amounts proposed to be expended on Public Works being distinguished from those required for redemption of previous loans:—

Year.	Amount authorised—		
	For Public Works and Services.	For Redemption of Loans.	Total.
	£	£	£
1875-9	10,708,768	.....	10,708,768
1880-4	26,457,803	.....	26,457,803
1885-9	11,123,394	2,113,800	13,237,194
1890-4	15,927,993	2,910,800	18,838,793
1895-9	13,661,046	2,275,200	15,936,246
1900-4	17,690,893	2,841,612	20,532,505
1905	968,430	.....	968,430
1906	1,130,800	550,000	1,680,800
1907	2,470,981	1,500,000	3,970,981
1908	2,690,167	2,566,354	5,256,521
1909	3,249,212	2,863,700	6,112,912
1910	4,883,000	.....	4,883,000
1911	3,868,970	.....	3,868,970

- Loan Appropriations are invariably in excess of the amount actually required for expenditure; and it has frequently happened that, beyond obtaining Parliamentary sanction, no further action has been taken in regard to loans authorised.

RAILWAYS LOAN ACCOUNT.

The Railways Loan Account was opened on the 1st September, 1910, under the authority of the Loan (Railways) Act. The maximum amount which can be borrowed under the Act is £2,000,000, the whole amount of which must be applied to meet the cost of duplicating portions of the main trunk lines of railways and other works in connection therewith.

The proceeds of the Funded Stock credited to the Railways Loan Account during 1910-11 amounted to £1,360,994, the whole of which was obtained in Sydney. The expenditure during the same period on railway works amounted to £460,891. The following is the return for the year 1910-11 :—

Receipts—	£	Expenditure—	£
Proceeds of Sales—		Northern Line Duplication ...	183,710
Funded Stock, Sydney ...	1,360,994	Western Line „ ...	134,251
		Southern Line „ ...	45
		Illawarra Line „ ...	142,885
			<u>460,891</u>
		Balance carried forward to	
		1911-12	900,103
	<u>£1,360,994</u>		<u>£1,360,994</u>

LOAN ACCOUNTS.

The following figures show the amount of loans raised from the commencement of the Loan Account, in 1853, to the 30th June, 1911, and the proceeds available for expenditure, including the moneys credited to the Railways Loan Account :—

Treasury Bills, Debentures, Inscribed and Funded Stock sold to 30th June, 1911	£138,797,372
Discount, interest bonus, and charges	4,246,115
Net amount realised	<u>£134,551,257</u>
Add net amount transferred from Consolidated Revenue to make good amount short-raised	176,767
Add Advances to Settlers in excess of loans floated... ..	258,858
	<u>£134,986,882</u>
Less Treasury Bills in aid of Revenue not placed to Loan Account	4,769,653
Less proceeds of old loans not included in Loan Accounts	724,733
Less Municipal Debentures taken over and still outstanding	57,533
Less amounts over-raised and not placed to Loan Account	48,760
	<u>5,600,679</u>
Sum available for works, &c.... ..	£129,386,203

As the above statement shows, a sum of £138,797,372 has been raised by loan to the 30th June, 1911, in connection with which the discount, interest, bonus, and other charges amounted to £4,246,115, leaving £134,551,257 available for expenditure. The effective value of this latter amount was reduced by the sum of £5,600,679 (utilised as shown above). Thus, taking account of £435,625 transferred from Consolidated Revenue and Advances to Settlers in excess of loans floated, the net amount available for works, &c., was £129,386,203.

At the 30th June, 1911, £43,273,446 had been redeemed, £8,475,887 being a charge on the Consolidated Revenue, representing the proceeds of new loans, leaving £95,523,926 outstanding at the close of the last financial year. The aggregate amount of interest paid by the State on its loans to the 30th June, 1911, was £74,764,247, of which the charge during the last financial year was £3,227,315.

The uses to which the available sum of £129,386,203 was applied are shown in the following table. The sum of £34,492,559 for redemption of loans is included in the total; this amount was not, of course, an item of expenditure, but its inclusion is necessary to fully account for the total of £129,762,096, in which the original loans, as well as the redemption loans, were included:—

Expended on—	£	£
Reproductive Works:—		
Railways... ..	52,920,833	
Tramways	5,586,453	
Water Supply	7,229,793	
Sewerage... ..	5,439,638	
Sydney Harbour Trust	5,339,635	
Darling Harbour Wharves Resumptions	1,147,814	
		77,663,566
Partly Productive Works:—		
Conservation of Water, Artesian Boring, &c.	1,809,611	
Harbours and Rivers—Navigation	4,718,039	
Roads and Bridges	1,791,612	
		8,319,262
Public Works and Buildings	4,928,469	
Advances to Settlers	683,308	
Immigration	*194,430	
Public Works in Queensland prior to separation	49,855	
		5,856,062
Commonwealth Services—		
Construction of Telegraph and Telephone Lines	1,297,583	
Post and Telegraph Offices	464,262	
Fortifications and Defence Works	1,457,536	
Lighthouses	144,288	
Customs Buildings	48,879	
Quarantine Buildings	18,099	
		3,430,647
		£95,269,537
Redemptions:—		
Loans repaid under various Acts	£17,475,559	
Treasury Bills for Loan Services repaid	16,641,500	
Debt due by Territorial Revenue for Immigration	375,500	
		34,492,559
		£129,762,096
Add Credit Balance of Railways Loan Account on 30th June, 1911		900,103
		130,662,199
Less Debit Balance of General Loan Account on 30th June, 1911		1,275,996
		£129,386,203
Total (as shown previously)		

* Exclusive of £724,733 expended prior to the inauguration of Loans Account, which, with the amount already stated (£194,430), gives a total expenditure on Immigration to 30th June, 1911, of £919,163.

The sum actually expended from loans on public services was, therefore, £95,269,537, the balance to make up the total of £129,762,096 being represented by redemptions. The difference of £375,893 above the sum available for expenditure is accounted for by taking into consideration the amount of credit balance of the Railways Loan Account and of the debit balance of the General Loan Account at the 30th June, 1911. Analysing the above amounts, the following shows the allocation of the items of expenditure:—

Reproductive Works	81 per cent.
Partly productive Works	9 "
Other	6 "
Commonwealth Services	4 "

The loan expenditure on account of the various services during the last four years has been as follows:—

Head of Service.	1908.	1909.	1910.	1911.
	£	£	£	£
Railways	1,132,689	1,709,658	2,064,026	2,127,412
Tramways	230,625	417,975	407,259	420,260
Water Supply and Sewerage—				
Water Supply	176,019	419,557	200,229	232,285
Sewerage... ..	161,250	200,602	173,378	225,621
Water Conservation and Irrigation	33,550	.....	204,503	272,913
Harbours and Rivers Navigation	140,890	125,197	159,913	235,275
Roads and Bridges	1,690	.....	.....	.....
Public Works, Buildings, &c.	14,563	1,418	9,248	21
Public Abattoirs, Homebush	85,000	30,000	11,973	65,825
Closer Settlement ... ..	.....	.....	.....	350,000
Roads of access to Crown Lands	671	.....	.....	.....
Jenolan Caves... ..	1,202	3,798	.....	.....
Loans to Pastures Protection Boards for wire netting ... ..	.....	13,609	23,246	.....
Total Expenditure on Public Works, &c. £	1,978,149	2,921,814	3,253,775	3,929,612
Less Excess Repayments to Credit of Votes over Expenditure	12,820	15,307	7,135	7,854
	£ 1,965,329	2,906,507	3,246,640	3,921,758
Loans repaid by New Loans (including Treasury Bills)	3,617,600	3,240,800	3,499,744	3,088,462
Total	£ 5,582,929	6,147,307	6,746,384	7,010,220

Most of the foregoing items were for services likely to be permanently revenue-producing, or deemed necessary for the proper development of the State.

When every allowance has been made for any unwise or improvident expenditure, it will be found that the bulk of the proceeds of loans has been well utilised; since, apart from the certainty that the works constructed will be self-supporting, they have already materially assisted in developing the country's resources, and have largely enhanced the value of the public estate.

The loan expenditure, exclusive of payments on account of redemptions, since 1842 is shown below:—

Year.	During each period.		At the end of each period.	
	Amount.	Per Inhabitant.	Amount.	Per Inhabitant.
	£	£ s. d.	£	£ s. d.
1842-1890	.....	.....	43,955,551	39 3 7
1891-1895	11,683,598	9 18 10	55,639,149	43 17 6
1896-1900	8,832,106	6 15 0	64,471,255	47 7 4
1901-1905	16,297,655	11 12 11	80,768,910	54 12 9
1906	1,367,022	0 18 5	82,135,932	55 6 11
1907	1,094,238	0 14 5	83,230,170	54 17 8
1908	1,965,329	1 5 4	85,195,499	54 17 2
1909	2,906,507	1 16 10	88,102,006	55 15 9
1910	3,246,640	2 0 5	91,347,723	56 16 9
1911	3,921,753	2 7 10	95,269,537	58 2 0

The rate of borrowing which so marked the quinquennium 1901-1905 has been stopped; and loan expenditure will, in the future, be confined mainly to perfecting the various railway systems.

While the public debt of the State on the 30th June, 1911, was £95,523,926, there has been an expenditure of £95,269,537 on public services, the difference, £254,389, being the difference between the face

value of the stock and the net amount received, and the amount of Treasury Deficiency Bills outstanding. The revenue and expenditure in connection with the business undertakings or trading concerns of the State, namely, the railways and tramways, the Metropolitan and Hunter District Water and Sewerage Boards, the Sydney Harbour Trust, and the Observatory Hill Resumed Area (Rocks), &c., for the past six years, are shown below :—

Year ended 30th June.	Capital Expenditure.	Revenue.	Expenditure.			Net Revenue.	Proportion of Net Revenue to Capital Expenditure.
			Working Expenses.	Interest.	Total.		
	£	£	£	£	£	£	per cent.
1906	65,562,896	5,904,620	3,202,337	2,175,247	5,377,584	527,036	0·81
1907	66,422,689	6,479,703	3,460,945	2,268,701	5,729,646	750,057	1·14
1908	68,247,335	6,900,472	3,764,646	2,357,679	6,122,325	778,147	1·16
1909	70,542,794	7,046,585	4,160,641	2,401,566	6,562,207	484,378	0·70
1910	73,480,144	7,615,024	4,595,710	2,413,263	7,008,973	606,051	0·84
1911	76,497,289	8,428,819	5,153,728	2,551,760	7,705,488	723,330	0·96

Thus, during the last six years there has been a substantial surplus, after meeting the interest, on the capital cost of the above-mentioned undertakings.

EXPENDITURE ON IMMIGRATION.—1832 TO 1910.

In view of the interest taken in the matter of expenditure on account of immigration, the following statement has been prepared to show the amount spent since the year 1832 :—

Year.	Amount.	Year.	Amount.	Year.	Amount.
	£		£		£
1832 to 1850	1,192,193	1871	3,648	1892	2,333
1851	95,816	1872	8,006	1893	3,106
1852	149,107	1873	3,759	Dec., 1894	2,109
1853	146,574	1874	18,190	June, 1895	695
1854	242,656	1875	14,962	(half-year).	
1855	165,783	1876	27,010	June, 1896	547
1856	120,649	1877	75,008	1897	486
1857	139,604	1878	95,585	1898	186
1858	90,460	1879	103,766	1899	147
1859	81,605	1880	45,602	1900	27
1860	29,001	1881	45,966	1901	.....
1861	20,034	1882	46,301	1902	245
1862	63,357	1883	112,319	1903	.....
1863	83,487	1884	132,176	1904	.....
1864	25,987	1885	107,596	1905	.....
1865	34,150	1886	35,397	1906	1,226
1866	23,225	1887	32,251	1907	8,079
1867	14,037	1888	7,854	1908	13,184
1868	11,203	1889	8,073	1909	22,436
1869	2,396	1890	5,916	1910	26,815
1870	1,104	1891	4,564	1911	32,786

It should be noted that the amounts expended from revenue and loans cannot be stated separately, as in the earlier years the proceeds of loans were credited to Consolidated Revenue, and part of the immigration expenses were defrayed from "Territorial Revenue," which was a distinct account.

THE PUBLIC DEBT.

The public debt outstanding at each quinquennial period is given in the subjoined table :—

Year.	Amount.	Year.	Amount.	Year.	Amount.
	£		£		£
1842	49,500	1870	9,681,130	1895	58,220,933
1845	97,900	1875	11,470,637	1900	65,332,993
1850	132,500	1880	14,903,919	1905	82,321,998
1855	1,000,800	1885	35,564,259	1910	92,525,095
1860	3,830,230	1890	48,383,333	1911	95,523,926
1865	5,749,630				

The following table, which contains the more important particulars of the Public Loan Accounts, shows the growth of the Public Debt during the last ten years. The amount of bonds or stock sold has been placed against the year in which the sales were affected, and not against the year in which they were brought to account :—

Year ended 30th June.	Treasury Bills, Debentures, and Stock at close of each year—						
	Authorised.	Sold.	Redeemed.			Public Debt.	
			From Consolidated Revenue.	By New Loans.	Total.	Total.	Per Inhabitant.
	£	£	£	£	£	£	£ s. d.
1902	111,621,285	90,429,602	4,725,987	14,111,130	18,837,117	71,592,485	51 8 8
1903	120,200,858	97,201,004	4,975,987	14,532,030	19,508,017	77,692,987	54 18 10
1904	123,047,542	100,793,398	5,750,987	15,008,830	20,759,817	80,033,581	55 12 11
1905	125,615,192	105,455,015	6,000,987	17,132,030	23,133,017	82,321,998	56 1 7
1906	128,660,513	110,860,251	6,250,987	18,967,530	25,218,517	85,641,734	57 1 2
1907	130,341,313	113,686,633	6,728,771	21,350,030	28,078,801	85,607,832	55 13 5
1908	139,512,294	120,029,343	7,425,887	24,967,630	32,393,517	87,635,826	55 18 6
1909	140,192,315	126,241,736	7,725,887	28,208,430	35,934,317	90,307,419	56 14 6
1910	146,305,227	132,465,238	8,231,066	31,709,097	39,940,163	92,525,095	57 0 9
1911	153,188,227	138,797,372	8,475,887	34,797,559	43,273,446	95,523,926	57 11 0

The next table shows the annual payments under each head for interest and expenses of the Public Debt since 1902 :—

Year ended 30th June.	Interest.	Redemptions.	Expenses connected with management of Inscribed Stock.	Commission paid to Financial Agents in England and New South Wales.	Annual Interest and Charges.	
					Total.	Per Inhabitant.
	£	£	£	£	£	£ s. d.
1902	2,498,750	274,550	19,250	2,825	2,795,375	2 0 7
1903	2,619,766	369,413	20,211	2,876	3,012,266	2 2 11
1904	2,745,348	369,412	20,637	2,479	3,137,876	2 4 0
1905	2,856,872	319,413	20,640	1,766	3,198,691	2 4 1
1906	2,941,059	360,016	20,643	3,137	3,324,855	2 4 10
1907	3,047,618	405,090	21,143	1,645	3,475,496	2 5 10
1908	2,986,844	406,145	21,143	5,641	3,419,773	2 4 0
1909	3,039,539	478,791	20,501	3,046	3,541,877	2 4 10
1910	3,117,472	421,034	18,894	4,621	3,562,021	2 4 4
1911	3,227,315	409,349	19,095	4,159	3,659,918	2 4 8

The average rate of interest on the whole debt at the end of the financial year 1911 was 3·52 per cent.

At present the net revenue from the public works of the country is derived from railways, tramways, water supply and sewerage, and the Sydney Harbour Trust. The water and sewerage works of the Metropolitan area are not yet completed, and are now self-supporting—that is, the revenue is sufficient to meet the amount required to be expended on account of maintenance, management, depreciation, and interest on capital liability. The same remarks apply to the works under the control of the Hunter District Board. In connection with these works it must, however, be borne in mind that, in the absence of a complete and compulsory reticulation, there must be a large outlay of capital expenditure on which no return is received.

The public debt is partly funded and partly unfunded, the funded debt comprising debentures, inscribed and funded stocks, and Treasury bills constituting the unfunded portion. The two classes are defined by the difference in currency, the funded debt being long-dated loans, and the unfunded, short-dated loans. Originally the term "funded" was applied only to interminable stocks, the amount of which, £530,190, is, as compared with the total debt, unimportant; but it is now the practice to apply this term also to redeemable debts. The amount outstanding on the 30th June, 1911, under each class, and the total debt, were as follow:—

Description of Stock.	Amount outstanding, 30th June, 1911.	Annual Interest payable.
Funded Debt—		
Debentures—	£	£
Matured, which have ceased to bear interest	3,450	.....
Still bearing interest	2,193,800	87,779
N. S. Wales 4 per cents. (Interminable) ...	530,190	21,208
„ 1924 Stock... ..	198,065	5,942
„ 1925 „ „ „ „	222,255	6,668
Inscribed and Funded Stock (includes £3,725 matured)	91,960,250	3,229,117
Total, Funded Debt...	£95,108,010	£3,350,714
Unfunded Debt—		
Treasury Bills—		
Redemption (matured)	1,400	.....
Deficiency of Revenue	414,516	12,870
Total, Unfunded Debt ...	£415,916	12,870
Total, Public Debt	£95,523,926	£3,363,584

The following table shows the total amount of stock under each rate of interest. There were, however, overdue debentures to the amount of £3,450 outstanding on the 30th June, 1911, and Funded Stock to the value of £3,725, and Treasury Bills £1,400, which have ceased to bear interest:—

Interest—Per cent.	Amount of Stock.	Annual Interest payable.
	£	£
5	*4,050	135
4	† 15,962,765	638,278
3½	11,037,821	413,918
3¼	‡ 51,144,592	1,790,012
3	17,374,698	521,241
Total	£95,523,926	£3,363,584

* Includes £1,350 matured debentures.

† Includes £2,100 matured debentures and £3,725 matured Funded Stock.

‡ Includes £1,400 matured.

The 3 per cents. comprise £1,500,000 Inscribed Stock, floated in London during January, 1898, and Inscribed Stock, floated in London, Funded Stock raised locally, and Treasury Bills representing Trust Funds in the hands of the Government, and so invested. The whole of the Treasury Bills bore interest at the rate of 4 per cent. to 31st December, 1894, but the rate of interest on a large proportion was reduced to 3 per cent. from the 1st January, 1895.

DATES OF MATURITY.

The dates of repayment extend from 1912 to 1950; the sums repayable in the different years vary considerably in amount. With regard to the large amount maturing in 1912, it should be noted that it has been raised in the local market, and the conditions as to redemption are not so rigid as those attached to the London issues, as the Government has the option to redeem during 1912 or at any period thereafter. But in 1918 nearly £12,800,000 of stock will have to be dealt with in London. It does not follow, however, that large parcels of stock falling due in any one year will cause embarrassment in repayments, as it is well within the range of possibility that at an early date consideration will be given to a scheme of loan consolidation, and conditions such as those arising in 1918 would apparently facilitate and favour such a project.

The following table shows the due dates and the amount repayable in each year :—

Class of Security.	Interest Rate.	Amount raised in—		Total Out-standing.	Year when Due.
		London.	Sydney.		
Debentures	5	£ 1,250	£ 100	£ 1,350	Overdue.
Inscribed Stock	4	....	3,725	3,725	Overdue.
Debentures	4	1,300	....	1,300	Overdue.
"	4	800	....	800	Overdue.
"	4	60,000	....	....	....
Inscribed and Funded Stock	4	....	2,549,350	9,884,508	1912.
"	3½	....	1,500,000		
"	3½	....	1,768,456		
"	3	....	4,006,702		
"	4	....	1,000,000	3,881,081	1915.
"	3½	....	499,981		
Debentures	4	....	131,100		
"	4	2,000,000	....	
Inscribed and Funded Stock	3½	....	250,000	12,826,200	1918.
"	3½	12,826,200	....	
"	3½	....	9,752,628	9,872,678	1919.
"	3	....	120,050		
Inscribed and Funded Stock	3½	....	2,999,758	4,872,843	1921.
"	3½	....	1,873,085		
"	3½	....	1,874,015	1,874,015	1923.
"	3½	16,500,000	....	
N.S.W. 1924 Stock	3	....	198,065	16,698,065	1924.
"	3	....	222,255		
Inscribed Stock	4	9,686,300	....	9,686,300	1925.
"	3	12,500,000	....	
"	3½	12,250,000	....	12,250,000	1935.
Funded Stock	4	....	530,190		
Permanent	6	....	2,700	530,190	Interminable.
				2,700	Permanent.
Funded Debt		£ 65,825,850	29,282,160	95,108,010	
Treasury Bills—					
Deficiency of Revenue	3	....	327,626	327,626	£150,000 re-deemed annually. Redeemed up to £50,000 annually from surpluses. Overdue.
"	3½	....	86,890	86,890	
Redemptions	3½	....	1,400	1,400	
Unfunded Debt		£	415,916	415,916	
Total Public Debt on 30th June, 1911..		£ 65,825,850	29,698,076	95,523,926	

As will be seen in this table, New South Wales is indebted to the London market for nearly three-fourths of the money raised under loan. This dependence on the English market was due originally to the lack of local capital; but of late years, when such capital has been fairly abundant, the Government has still turned to London, where the rate of interest at which it could borrow was much lower than would have been demanded by the local capitalists. The local and English rates are now much nearer than at any period in the history of Australia, and it is probable that the Government could place small loans almost as advantageously in Sydney as in London.

COST OF RAISING LOANS.

The charges incidental to the floating of an inscribed stock loan in England are heavy, the chief expenses being the underwriting charge of $1\frac{1}{2}$ per cent., and the composition duty of 12s. 6d. per cent. to the British Government. The other charges are:—Bank commission, $\frac{1}{4}$ per cent.; brokerage, $\frac{1}{4}$ per cent.; and minor expenses, which amount to about 1s. per cent.

The expenses incurred for the inscription and management of stock by the Bank of England are £350 per million, and for similar services by the London County and Westminster Bank £150 per million.

The subjoined statement gives the charges of negotiation of the last two debenture loans, and of the inscribed and funded stock loans floated during the period from 1895 to 1911:—

Year when Floated.	Amount of Principal.	Gross Proceeds.	Charges.					Expenses per £100 of—	
			Stamp Duty.	Bank Commission.	Paid to Investors—Interest Bonus and Discount Bonus.	Brokers' Commission, Postage, and Petty Expenses.	Total.	Stock issued.	
	£	£	£	£	£	£	£	£ s. d.	
Issued (in London) as Debentures.									
1904-5	1,000,000	1,990,000	2,500	5,000	737	*30,272	38,509	1 18 6.	
1904-5	1,000,000								
Issued (in Sydney) as Debentures.									
1904-5	131,100	131,100	nil.	nil.	nil.	nil.	nil.	nil.	
Issued (in Sydney) as Funded Stock.									
1905-6	1,328,346	1,328,346	.....	.....	.....	2,735	2,735	0 4 1
6-7	2,826,382	2,826,382	.....	.....	.....	5,283	5,283	0 3 9
1907-8	3,342,710	3,342,710	.....	.....	.....	7,372	7,372	0 4 5
1908-9	462,393	462,393	.....	.....	.....	666	666	0 2 10
1909-10	3,473,523	3,473,523	.....	.....	.....	4,927	4,927	0 2 10
1910-11	6,332,113	6,332,113	.....	.....	.....	6,811	6,811	0 2 2
Issued (in London) as Inscribed Stock.									
1895	4,000,000	3,876,605	25,000	20,000	16,311	10,720	72,031	1 16 0	
1898	1,500,000	1,506,269	9,375	7,500	5,207	4,441	26,523	1 15 4	
1901	4,000,000	3,760,000	25,000	20,000	9,735	*60,347	115,082	2 27 6	
1902	3,000,000	2,835,000	18,750	15,000	23,451	*45,608	107,809	3 11 10	
1905-6	2,000,000	1,990,000	12,500	5,000	19,102	30,491	67,093	3 7 1	
1907-8	3,000,000	3,000,000	18,750	7,500	40,143	*45,858	112,251	3 14-10	
1908-9	1,500,000	1,462,500	9,375	3,750	12,230	*23,302	48,667	3 4 11	
	3,000,000	2,955,000	18,750	7,500	29,691	*45,398	101,339	3 7 7	
1909-10	2,750,000	2,667,500	17,187	6,875	22,154	*42,131	88,347	3 4 2	

* Includes underwriting commission of $1\frac{1}{2}$ per cent.

REDEMPTIONS AND SINKING FUNDS.

At maturity, loans are either redeemed or renewed, the latter being the more usual operation. The State Debt and Sinking Fund Act was brought into operation on the 1st July, 1905. Under the provisions of this Act a general sinking fund was created, and an annual appropriation of £350,000 is made to the credit of the fund, and such further amount as Parliament may provide, while under the Treasury Bills Deficiency Act, 1905, an additional £50,000 must be transferred to the fund whenever the operations of a financial year leave a sufficiently large surplus to enable this to be done. The Commissioners are directed from time to time to apply the amount at credit of the fund in purchasing, redeeming, or paying-off Government stock, debentures, or Treasury bills; and they are empowered to invest the moneys under the Act.

The whole amount of £400,000, however, is not available for general purposes, inasmuch as a sum of £300,000 is required yearly to retire matured Revenue Deficiency Bills in accordance with the terms of the Acts under which they were issued. The residue (£100,000), together with credits, interest on stocks, fixed deposits in banks of issue, and any balance brought forward from the previous period constitutes the amount available for application to redemptions in any one year. It will be seen in the statement hereunder relating to the year ended June, 1911, that Deficiency Bills to the amount of £244,821 only were redeemed, the reason being that bills under Act 59 Vic, No. 22 still outstanding do not mature till the month of September in each year. The balance at credit of the fund on the 1st July, 1910, was £331,308. During the following twelve months the amount of £244,821 was used in redemption of Treasury bills. On the other hand, the withdrawal was counteracted by a credit of £400,000 out of the Consolidated Revenue Fund, in accordance with the provisions of the Treasury Bills Deficiency Act of 1905, and of the Act under which the fund was created. The transactions under the Act for the financial year ended 30th June, 1911, were as follow:—

<i>Dr.</i>						£	£
To Balance, 30th June, 1910—							
Cash...	...	...	...	...	...	164,122	
In Securities	...	...	...	...	...	167,186	
							331,308
Country Towns Water Supply—Repayments	...	...	...	...	...		2,121
Country Towns Sewerage—Repayments	...	...	...	...	...		138
Bogan Scrub Act, 1905	...	...	...	...	...		6,305
Sydney Harbour Trust Loan Sinking Fund	...	...	...	...	...		3,044
Annual Contribution from Consolidated Revenue Fund	...	...	...	...	...		350,000
Contribution under Treasury Bills Deficiency Act, 1905	...	...	...	...	...		50,000
Interest on Investments, &c.	...	...	...	...	...		6,826
Total	...	...	...	...	...		£749,742

<i>Cr.</i>						£	£
By Redemptions—							
Treasury Bills Deficiency Act, 1905	...	...	...	...	...	50,000	
Treasury Deficiency Bills Act, 59 Vic. No. 22	...	...	...	...	...	194,821	
							244,821
By Balance at credit of Commissioners—							
Invested in N.S.W. Funded Stock	...	...	...	...	...	191,834	
On Deposit with Colonial Treasurer	...	...	...	...	...	193,004	
On Bank Fixed Deposit	...	...	...	...	...	120,000	
On Account Current	...	...	...	...	...	83	
							504,921
Total	...	...	...	...	...		£749,742

Under the provisions of the "State Debt and Sinking Fund Act, 1904," various balances at credit of Special Accounts established by the Treasury Bills Deficiency Act, 1889, were transferred to and administered by the State Debt Commissioners from the 1st July, 1905. The Special Accounts were as follows:—The Treasury Bills Deficiency Act of 1895; the Treasury Bills Deficiency Act, 1900; the Treasury Bills Deficiency (Amendment) Act, 1901; the Railway Loan Redemption Act of 1889; and the Sinking Funds constituted by the Loan Acts of 1894 (No. 2), 1895, 1896, 1897, 1898, and 1899.

CHARACTER OF STOCK ISSUED.

As previously stated, loans have been raised by Treasury bills, debentures, and stock.

The Treasury bills are of a temporary character, and will in the course of a few years disappear from the statement of the public debt, either by substitution of ordinary stock when the temporary purpose for which they were issued has been served, or by redemption on maturity. The practice of issuing Treasury bills, either in anticipation of, or to make good, deficiencies in revenue, is of long standing; but, as will be seen later on, they have been made to serve another purpose, and money has been raised by their sale to meet certain obligations for public works and redemptions. This is an innovation which could not be well avoided in the disturbed markets of late years. The Treasury bills are like the British Treasury bills in name only; but they have some points in common with the British Exchequer bills. The amount current on the 30th June, 1911, was £415,916, of which sum £414,516 represents bills in aid of revenue and £1,400 those issued for redemptions.

From 1842 to 1883 the practice followed was to raise loans by debenture bonds. In the latter year the Inscribed Stock Act was passed, in conformity with the provisions of the Imperial "Colonial Stock Act of 1877," and the system of raising loans by debentures terminated for the time being. During the financial year ended 30th June, 1905, however, debentures to the amount of £131,100 were raised locally under Act 64 Vic. No. 60, and under that Act and Act 1 Edw. VII No. 62, debentures to the amount of £2,000,000 were raised in London, both amounts maturing in 1915, and bearing interest at the rate of 4 per cent. per annum. The amount of debentures outstanding on the 30th June, 1911, was £2,197,250.

The issue of funded stock, which may be more appropriately termed registered stock, is regulated by four Acts passed in the years 1873, 1892, 1894, and 1895. Stock issued under the Act of 1873 is interminable, but that issued under the more recent Acts may be redeemed at the option of the Government, at the expiration of twenty years from the dates on which the Acts were passed, on the Treasurer giving twelve months' notice of his intention to redeem.

SECURITY FOR THE PUBLIC DEBT.

In the foregoing pages much has been said of the indebtedness of the State. It is, therefore, only fair to say something of the resources on which the State's creditors may rely as security for repayment; but before examining the nature of these resources it may be well to recapitulate the liabilities outstanding. On the 30th June, 1911, these were as follow:—

Public Debt, including Treasury Bills for loan services...	£95,109,410
Treasury Bills in aid of Revenue	414,516
Total... ..	£95,523,926

The total amount of Public Debt might reasonably be lessened by the sum of £1,123,796 shown below, representing the amount spent on services, which is to be repaid in annual instalments of principal and interest by the parties benefited by the expenditure:—

Country Towns Water Supply	£838,829
Country Towns Sewerage	119,880
Water and Drainage Trusts	153,968
Other Advances	11,119
Total	£1,123,796

The principal assets of the State are its business undertakings (railways, water supply, &c.), which in the last financial year yielded a net return, after paying working expenses, of £3,275,090, or almost enough to pay the interest on the whole of the debt; and the public lands, of which 125,771,584 acres are leased for pastoral or mining purposes, and 15,614,036 acres sold on deferred payments. The annual rent from the former is £694,000, and the balance due in respect of the latter amounts to £8,610,000.

The following statement shows how the public debt has been expended, and gives an approximate valuation of the resources on which the State may rely as security for the public creditors. The debt has been incurred principally on works of a reproductive character— 81 per cent. being on reproductive works, 9 per cent. on indirectly productive works for the facilitation of traffic, and 10 per cent. on unproductive works.

The value of the securities has been calculated by taking, first, the actual average net return of the business undertakings for the three years ended 30th June, 1911, and capitalising at $3\frac{1}{2}$ per cent. The value of the public lands has been estimated on the basis only of the annual revenue, capitalised at $3\frac{1}{2}$ per cent., and the amount still outstanding on land alienated (conditional purchases). The 18 million acres neither alienated nor leased have not been taken into account, as no valuation has been made by the Lands Department. There is, therefore, little doubt that the value quoted is greatly under-estimated. Finally, the actual amount of the Sinking Fund and the cash in hand and on deposit on 30th June, 1911, have been included:—

Public Debt.		Estimated Value of Securities.	
Reproductive Works—		Business Undertakings—	
Railways and Tramways	£ 58,507,286	Railways and Tramways	£ 68,851,000
Water and Sewerage	12,669,431	Water and Sewerage	10,833,000
Sydney Harbour Trust	5,339,035	Sydney Harbour Trust	6,800,000
Darling Harbour Resumptions	1,147,814	Darling Harbour Resumptions	948,000
	£77,063,566		£87,432,000
Indirectly Productive Works—		Public Lands—	
Conservation of Water, &c.	1,809,611	Leased	13,917,000
Roads and Bridges	1,791,612	Amount outstanding on C.P.'s	8,610,000
Harbours and Rivers	4,718,039		£22,527,000
	£8,319,262		
Unproductive Works—		Cash in hand and on deposit	
Public Buildings and Offices	4,928,469	Sinking Fund	4,508,000
Handed over to Commonwealth	3,430,647		505,000
Other Works	1,181,982		£5,013,000
	£9,541,098		
Total Debt	£95,923,926	Total Estimated Value of Securities	£114,972,000

Thus the value of the securities exceeds the debt by 19½ millions sterling. State properties can hardly be valued on the basis of private business undertakings, as they are not expected to earn as a maximum a much higher net return than is necessary to meet the interest on the capital expended. When the results are much in excess of the interest due, public opinion at once demands that reductions be made in the rates and charges.

It should also be borne in mind that, in valuing the securities, account has not been taken of works not directly producing revenue, such as harbour works, roads, bridges, and others, although these works have been of great service in developing the country. Latent power of taxation forms a further and inestimable security.

FINANCIAL RELATIONS BETWEEN STATES AND COMMONWEALTH.

One of the most difficult problems to be solved in formulating a constitution for the Commonwealth of Australia was met in the determination of the relative shares of the Commonwealth and States respectively in the proceeds of taxation from Customs and Excise. Each of the two governing powers was invested with authority to levy direct taxation, consequently no difficulty arose in this respect, but the power to impose tariffs through Customs and Excise duties was vested in the Commonwealth Parliament. Hence it became necessary to decide some proportion of the revenue derivable from these sources of indirect taxation which should constitute by legal right the share of the States *quo States* in these imposts.

By the Act under which the Commonwealth Constitution was founded it was decided by section 87, popularly known as the "Braddon" section, that during the first ten years of the existence of the newly-created Australian Commonwealth there should be returned to the States three-fourths of the net revenue from Customs and Excise; also, that such proportion should continue to be returnable after the ten-year period until the Commonwealth Parliament should decide what other disposition of these revenues should be made.

It was perceived prior to the foundation of the Commonwealth that this conventional arrangement, assigning one-fourth of the Customs and Excise duties to the Commonwealth and three-fourths to the States, would prove not only cumbersome in practical working, but would create most difficult conditions in the Federal financial arrangements, in that it would be necessary, in levying indirect taxation at any future period, to raise in reality £4 whenever £1 might be required, thus taking from the citizens £3 on each occasion, which might in general be unnecessary.

After the inception of the Commonwealth, it also became clear, by practical experience, first, from the Commonwealth standpoint, that of the total revenue, which the public policy of the Commonwealth declared to be the limit of indirect taxation which it was desirable to place on the people, the amount represented by one-quarter of the impost was insufficient for performing the functions of the Federal Government.

Secondly, from the State standpoint, it was found that for the State Treasurers a very disturbing factor constantly existed, inasmuch as it was impossible to forecast within reasonable time for their annual financial arrangements what would be the money-value of their three-quarter share of the Federal taxation. The Federal and State systems of finance were so intertwined and interdependent as to provide a ready and practically certain means of friction between two powers each with

clearly distinct functions, which in all other respects it should be possible to control and perform without interference or disputation the one with the other.

During the early years of the experience of the Commonwealth the question of the policy to be pursued at the expiry of the period of ten years named in the Braddon section was not immediately pressing, because (1) the needs of the Federation had not become sufficiently urgent to cause a necessity for appropriating the full quarter allocated for Commonwealth requirements, and (2) the fact that a term of years had yet to ensue before a fresh arrangement could be made under the Constitution tended to the postponement of the determination of a question which was fully recognised to be intricate and difficult of solution.

The following statement will serve to show the degree in which one-fourth of the Customs and Excise taxation served to fulfil the Commonwealth requirements, and how, with the progression of time, and the development of national needs, the amount available became insufficient for such purposes:—

Year.	Net Revenue, Customs and Excise. (1)	One-fourth of net Customs and Excise revenue. (2)	Portion of one-fourth of net Revenue needed for Common- wealth Expenditure. (3)	Balance of the one-fourth not used by Common- wealth, and returned to States. (4)=(2)-(3)	Three-fourths due to States under Constitution. (5)	Total returned to States. (6)=(4)+(5)
	£	£	£	£	£	£
1901-2 ...	8,633,996	2,158,499	1,269,757	888,742	6,475,497	7,364,239
1902-3 ...	9,412,442	2,353,110	1,207,876	1,145,234	7,059,332	8,204,566
1903-4 ..	8,844,195	2,211,049	1,465,716	745,333	6,633,146	7,378,479
1904-5 ...	8,543,310	2,135,827	1,400,541	735,286	6,407,483	7,142,769
1905-6 ...	8,739,298	2,184,825	1,354,915	829,910	6,554,473	7,384,383
1906-7 ...	9,386,097	2,346,524	1,540,523	806,001	7,039,573	7,845,574
1907-8 ...	11,368,220	2,842,055	2,511,315	330,740	8,526,165	8,856,905
1908-9 ...	10,573,860	2,643,465	2,643,465	Nil.	7,930,395	7,930,395
1909-10 ...	11,323,207	2,830,801	2,830,801	Nil.	8,492,406	8,492,406
Total ...	86,824,625	21,706,155	16,224,909	5,481,246	65,118,470	70,599,716

From the above table it is apparent that during the first seven years the Commonwealth was entitled to receive as its share more than sufficient for its declared needs, and that since 1908 there have been commitments devolving on the Federal authorities exceeding the moneys at their disposal. Consequently, it had become seriously evident towards the close of the ten-year period that more revenue would be required in the future than has been available in the past to enable the Federal Government to fulfil its assigned functions.

During the period of negotiation amongst the States antecedent to the creation of the Commonwealth, attempts were made to devise an acceptable plan relating to the allocation of the Customs and Excise revenue, and the compromise known as the Braddon section was adopted tentatively to avoid the risk of failure in the formative stages of the Federation. And during the succeeding years eight conferences have been held by the Premiers of the several States to endeavour to secure finality, but until the year 1909 no definite agreement was reached. In that year a Conference of Premiers met at Melbourne in conjunction with the Prime Minister of the Commonwealth, and after prolonged discussion an agreement was signed by all the parties to the following effect:—

“In the public interests of the people of Australia, to secure economy and efficiency in the raising and the spending of their revenues, and to permit their Governments to exercise unfettered control of their receipts and expenditure, it is imperative that the financial relations of the Federal and State Governments—which, under the Constitution, were determined only in part, and for a term of years—should be placed upon a sound and permanent basis.

“It is therefore agreed by the Ministers of State of the Commonwealth and the Ministers of the component States in conference assembled, to advise:—

- “1. That to fulfil the intention of the Constitution by providing for the consolidation and transfer of State debts, and in order to ensure the most profitable management of future loans by the establishment of one Australian stock, a complete investigation of this most important subject shall be undertaken forthwith by the Governments of the Commonwealth and the States. This investigation shall include the question of the actual cost to the States of transferred properties as defrayed out of loan or revenue moneys.
- “2. That in order to give freedom to the Commonwealth in levying duties of Customs and Excise, and to assure to the States a certain annual income, the Commonwealth shall, after the first day of July, one thousand nine hundred and ten, pay monthly to the States a sum calculated at the rate of one pound five shillings per annum per head of population according to the latest statistics of the Commonwealth.
- “3. That in recognition of the heavy obligations incurred in the payment of Old-Age Pensions, the Commonwealth may, during the current financial year, withhold from the moneys returnable to the States such sum (not exceeding six hundred thousand pounds) as will provide for the actual shortage in the revenue at the end of the said year. If such shortage amounts to six hundred thousand pounds the basis of contribution by the States shall be three shillings per head of population in the Pension States (*viz.*, New South Wales, Victoria, and Queensland), and two shillings per head of population in the Non-Pension States (*viz.*, South Australia, Western Australia, and Tasmania). If such shortage be less than six hundred thousand pounds the contributions shall be reduced proportionately per head of population as between the Pension and Non-Pension States.
- “4. That in view of the large contribution to the Customs revenue *per capita* made by the State of Western Australia, the Commonwealth shall (in addition to the payment provided for in

paragraph No. 2) make to such State special annual payments, commencing at two hundred and fifty thousand pounds in the financial year one thousand nine hundred and ten and one thousand nine hundred and eleven, and diminishing at the rate of ten thousand pounds per annum. The Commonwealth shall in each year deduct on a *per capita* basis from the moneys payable to the States of the Commonwealth an amount equal to one-half of the sum so payable to the State of Western Australia.

"5. That the Government of the Commonwealth bring before the Parliament during this session the necessary measure to enable an alteration of the Constitution (giving effect to the preceding paragraphs, Nos. 2, 3, and 4) to be submitted to the electors."

The necessary steps were taken by the Prime Minister of the Commonwealth to give effect to the agreement, which was done by the passage in the Commonwealth Parliament of the "Constitution Alteration (Finance) Act." This measure was passed by the Federal Parliament in December, 1909, but was rejected by the electors at a referendum taken during the Federal General Election in April, 1910.

This alteration of the Constitution was negatived in three States, New South Wales, Victoria, and South Australia, as well as in the Commonwealth as a whole. It therefore devolved on the Federal Parliament to determine the amount of revenue to be returned to each State, and the Surplus Revenue Act of 1910 was passed. In accordance with this Act, the Commonwealth will, during a period of ten years, commencing on the 1st July, 1910, and thereafter until Parliament otherwise provides, pay to each State, or apply to the payment of interest on debts of the State taken over by the Commonwealth, an annual sum of 25s. per head of the number of the people of the State. The State of Western Australia is to receive an additional sum, amounting in the first year to £250,000, and diminishing in each succeeding year by £10,000—one half of these payments to be deducted proportionately from the amounts payable to all the States. The Treasurer must also pay to the several States all surplus revenue in hand at the end of each financial year. The Act provided that during the six months January to June, 1911, the Commonwealth might deduct from the amount payable the sum of £450,000, the estimated shortage in the Commonwealth revenue for the year 1910-11. The following statement shows the amounts to be deducted from each State, as set forth in the Schedule of the Act:—

						£
New South Wales	...	...	...	...	...	178,973
Victoria	...	...	...	...	...	143,092
Queensland	...	...	...	...	...	63,788
South Australia	...	...	...	...	...	30,529
Western Australia	...	...	...	...	...	20,113
Tasmania	...	...	...	...	...	13,505
Total	...	...	...	...	...	£450,000

During the first six months of the financial year, ending June, 1911, the Commonwealth must return to the States three-fourths of the Customs and Excise revenue; but the Surplus Revenue Act provided that if the amounts paid during this period exceed 12s. 6d. *per capita*, the amounts during the next six months should be correspondingly reduced, so that the payments during the whole year should not exceed 25s. *per capita*, less the sum of £450,000 mentioned above.

The following statement shows the amounts paid to each State during the year ended 30th June, 1911, in accordance with the present agreement:—

State.	Amounts payable to States at 26s. per head of population as at 31st December, 1910.	Proportion of moiety of special payment to Western Australia deducted from each State.	Amounts withheld from each State in accordance with Surplus Revenue Act, 1910.	Amounts paid to States.
	£	£	£	£
New South Wales ...	2,054,171	46,505	178,973	1,828,693
Victoria	1,624,354	36,774	143,092	1,444,488
Queensland ...	746,292	16,895	63,788	665,609
South Australia ...	511,110	11,571	30,529	469,010
Western Australia ...	593,563*	7,778	20,113	565,672
Tasmania... ..	241,934	5,477	13,505	222,952
Total	5,771,424*	125,000	450,000	5,196,424

* Including £250,000, special payment to Western Australia.

At the Federal General Election in 1910 a referendum was also taken in connection with the transfer of State debts to the Commonwealth. In accordance with the Constitution, the Commonwealth was empowered to take over only such debts as had been incurred prior to Federation. An alteration was proposed, and ratified by the electors, to enable the Commonwealth to take over all debts incurred by the States.

A majority in favour of the resolution was recorded in all the States except New South Wales.

SOCIAL CONDITION.

SOCIAL WELFARE.

ACTIVE effort by the State of New South Wales to promote the well-being of the people, through the prevention or relief of sickness and destitution, as distinct from the maintenance of order and good government and the extension of educational facilities, is restricted mainly to the protection of infant life, the removal of children from unsuitable environments, and the housing and care of mental defectives, and of the aged and infirm. Only indirectly is the State concerned in the care of the sick (except at the Coast Hospital) and the destitute; its intervention in these matters is restricted to subsidising established institutions, in recognition of specific and well-directed effort to alleviate distress, whether attributable to improvidence, to sickness, or to pressure of economic conditions, over which the individual as an isolated force can exert no controlling influence. In addition to such State or State-aided agencies for social betterment, there exist numerous private charities which are not fortified by direct monetary assistance from the State in performance of the tasks they have undertaken. But though the cure and care of sickness and destitution are thus left to a considerable extent to private initiative, the State is an active agent in safeguarding public health from the loss likely to accrue through otherwise preventable disease. Naturally the more universal preventive work, as of quarantine, and the making of laws with respect to trade and commerce, and immigration, are functions of the Commonwealth Government, but matters pertaining to public health other than of seaboard quarantine, to the maintenance of high standards in regard to food, the supervision of sources of supply and distribution, and the enforcement of sanitary and hygienic conditions locally, are functions of the State Government.

In New South Wales a Department of Public Health is maintained to undertake the general medical work of the Government, safeguard public health, and act as an advisory board to Local Government bodies. It administers to this end acts relating to public health, dairies supervision, noxious trades, cattle slaughtering and diseased animals and meat, Sydney abattoirs, pure food, and private hospitals; and the Coast Hospital, and leper lazaret. The various Government asylums and the hospital for consumptives are maintained under a central control.

STATE EXPENDITURE ON HOSPITALS AND CHARITABLE RELIEF.

The amounts paid by the State towards the maintenance of Hospitals and Charitable institutions, including institutions for the relief of State children and the care of the insane, exceed in the aggregate £500,000 per annum. In addition to the cost of maintenance, paid out of Consolidated Revenue, there is usually each year a fairly heavy expenditure

from Public Works Account for buildings, &c. Following is a statement showing the growth of such expenditure in the last five years, viz. :—

Payments from—	Year ended 30th June.				
	1907.	1908.	1909.	1910.	1911.
	£	£	£	£	£
Consolidated Revenue	485,770	469,537	495,999	531,363	553,264
Public Works Account ... ..	.....	71,660	89,343	68,764	85,614
Loan Account	7,835	7,755	1,418	.....	.....
Total	£ 493,605	548,952	586,760	600,127	638,878

It is evident that the upward progression has been very steady, the total amount expended for the year ended 30th June, 1911, exceeding that for the year 1906-7 by £145,273.

Grouping the items of expenditure for maintenance under various appropriate headings, a comparison of the respective items shows as follows for the last two years :—

	1909-10.	1910-11.
	£	£
General Hospitals and Benevolent Institutions	111,427	129,928
Mental Hospitals and Institutions	184,373	204,970
Children's Relief	101,083	89,128
Benevolent Asylums—Government	81,655	72,860
Destitute and Deserted, Sick and other	29,526	31,031
Aborigines Protection	15,256	16,039
Benevolent Societies	5,788	5,771
Leper Lazaret	1,380	1,373
Miscellaneous	875	2,164
Total	£531,363	553,264

Criticism of the detailed statement for 1910-11 reveals an increase of 4·1 per cent. in the expenditure from Consolidated Revenue, the increases being greatest in connection with mental hospitals and institutions, and general hospitals.

To the figures shown are to be added the cost of State subventions to Friendly Societies, the maintenance of the Department of Public Health, and similar agencies for the public benefit.

PROTECTION OF THE ABORIGINES.

For the protection and training of the aboriginal natives in New South Wales, a central Board was appointed in June, 1910, under the Aborigines Protection Act, 1909, and replaced the previously existing local boards in the various districts of the State. All officers in the Police force of the State are *ex officio* guardians of the aborigines, and local committees co-operate with them in the protective work. The Central Board, consisting of the Inspector-General of Police, and a maximum of ten other members appointed by the Governor, controls the disbursement of moneys available for the education, training, maintenance, and relief of the aborigines.

The first census of the aboriginal population, taken in 1882, recorded 8,919 aborigines in the State, viz., 6,540 full-bloods, and 2,379 half-castes. In September, 1910, there were under control 6,957, viz., 1,872 full-bloods, and 5,085 half-castes. The following statement shows the classification as recorded in 1910, viz. :—

	Adults.		Children.	Total.
	Males.	Females.		
Full-bloods	831	538	503	1,872
Half-castes	1,203	1,046	2,836	5,085
Total	2,034	1,584	3,339	6,957

At the census taken on 2nd April, 1911, there were 2,022 full-blooded aborigines in New South Wales, viz., 1,157 males, and 865 females.

On the 31st December, 1909, the aborigines under protection numbered 7,370, and the average monthly number in receipt of aid was 2,610.

During 1910 the average number assisted was 2,527, viz., 1,170 adults, and 1,357 children. The revenue for the year 1909 was £17,261, of which £16,050 was received from the Government, and £1,211 from other sources. For 1910 the total revenue of the Board was £17,815, viz., £16,165 from State aid, and £1,650 from other sources; the total expenditure was £15,769.

During 1910, under the administration of the Aborigines Protection Board, the money expended on account of the Board amounted to £24,900, viz.:—

Vote.	Amount.	Objects.
	£	
Aborigines Protection Board... ..	14,355	General maintenance.
Stores Supply and Tender Board	6,055	Purchase of blankets and stores.
Chief Medical Officer	857	Medical attention.
Department of Public Instruction	3,608	Salaries of teachers, &c.
Other	25	Sanitary attendance, &c.

In addition to these amounts the Board expended £1,415 from its Produce Account, in improvements on the various stations, the purchase of machinery, stock, &c. The gross revenue received from sales of produce and stores amounted to £2,306, the total expenditure being £1,751, and the amount to credit of the combined account on 31st December, 1910, was £777. At the same date the Board held in trust to its credit in the New South Wales Government Savings Bank account a sum of £202, representing wages earned by aborigines.

The reserves controlled by the Board aggregated 25,000 acres at the end of December, 1910; the area set apart during the year being 795 acres. At the various stations and camps, dwellings, and in some cases dormitories, have been erected, and additional training homes are projected. In the schools of the State there were 940 aboriginal children in attendance, viz., 802 at public schools, and 138 at private schools; and during 1910 schools intended exclusively for the use of aborigines were established near Yass and Deniliquin; every aboriginal child under 14 years of age is required to attend the nearest available school.

Aboriginal children between the ages of 14 and 21 years may be apprenticed by the Board, and to this end the education of the children is proceeding, so as to render them efficient members of society.

In connection with a preliminary scientific expedition to the Northern Territory, where aboriginal natives are more numerous than elsewhere in Australia, and, except in the vicinity of the older settlements, have been least in contact with conditions which are quite foreign to them, the natives were found to be of great service on the cattle stations, invaluable to travellers, and essential in the police force as trackers, but it is recognised that the introduction of a compulsory system of payment of a definite money-wage to the adult workers would be unwise. Regarding the civilisation of the natives, investigation proved the truth of the view held by the New South Wales Aborigines Protection Board that attention should be devoted to the children, rather than to the adult aborigines, and that if the children be taught some legitimate means of earning a livelihood, they must gradually lose their instinct and capacity for a roaming life. On the mission stations the practice is followed of giving, to adult natives, food only in return for work done, and in the establishment of other stations, arrangements will be made for training the natives as agriculturists.

As regards the protection of aboriginal life on the lines of the New South Wales legislation, an Association for the Protection of Native Races exists, which aims at co-ordination of methods in treating all the native races in the Western Pacific and in Australia.

THE PROTECTION OF INFANT AND CHILD LIFE.

The care and protection of child-life devolves upon the State Children's Relief Board, as the only administrative agency directly concerned in the effort to rectify some of the disabilities attaching to the otherwise defenceless years of childhood.

The Board administers the following Acts:—Infant Protection, 1904; Children's Protection, 1902, State Children's Relief, 1901; Neglected Children and Juvenile Offenders, 1905.

The Infant Protection Act, 1904, designed for the protection, maintenance, education, and care of infants and children up to 7 years of age, provides for the inspection, control, and licensing of places established or used for the reception and care of two or more infants under 7 years of age, apart from their mothers, whether for payment or not.

Licensed homes are classified in two groups—those for the reception of five or less children, being frequently private homes, and those for six children or more, being mainly institutions of a charitable nature for the care of infants.

The number of licensed places during the last five years is shown below :—

Year.	Private Dwellings Registered.	Institutions.	
		Number.	Inmates under 7 years.
1906	77	13	189
1907	97	13	189
1908	124	14	170
1909	145	15	251
1910	137	15	238

With the exception of the Infants' Home, Ashfield, subsidised by the Government, the institutions are supported entirely by voluntary contributions.

The Sydney Benevolent Asylum and the Randwick Asylum, operating under special Acts, are exempted from the provisions of the Infant Protection Act.

In connection with the State Children's Relief Department, homes for Sick Infants are maintained at Paddington, at Thirlmere, and at Croydon, being essentially hospitals for dealing with the most serious diseases of childhood. During 1910, 89 babies under 2 years of age were admitted, 62 were discharged, and 30 died, 28 babies remaining in the institution in April, 1911. At Thirlmere there were 26 children under treatment in April, 1911, 55 having been admitted, and 29 discharged during the year, the deaths numbering 25. Where practicable the mothers are admitted with the babies, the majority of whom are suffering from neglect, ill-treatment, or disease. The homes at Paddington and Thirlmere were established in 1907, that at Croydon, in November, 1909, and its work is complementary to that of the two other homes. From the opening of the Croydon Home to April, 1911, 36 babies were admitted, of whom 24 were discharged.

AGES OF CHILDREN IN INSTITUTIONS.

The fifteen institutions licensed during 1910, provided accommodation for 352 children, and the ages of those admitted ranged from infancy up to 12 years, but the provisions of the Act only apply to those under age 7; the following statement shows the number under supervision, in each age group :—

Age group.	Number.	Age group.	Number.
Under 1 year	37	5-6 years	41
1-2 years	26	6-7 years	30
2-3 years	22		
3-4 years	47	Total	238
4-5 years	35		

INFANTILE MORTALITY.

The importance of the subject of infantile mortality has compelled the introduction of measures for saving a larger proportion of infant life than has hitherto been possible for lack of facilities for treating children suffering with diseases of a high grade of infectivity, and has also led to an investigation during 1911 by the Statistician, as to the death-rates experienced during preceding years, within various institutions receiving infants, with a view to comparing their experience with that of infants under the protection of the State Children's Relief Board.

From the experience investigated for the period 1902-1910 in regard to infants under 1 year of age, the following averages were deduced :—

Control.	Average Duration in Days.			Death rate per cent. of Exposed.
	Of all Cases.	Of Survivors.	Of Deceased.	
Infants' Home, Ashfield	124·8	133·9	72·6	32·39
*Nurse Frost's Home	73·9	110·6	48·7	82·78
Waitara „	89·4	130·7	48·3	73·78
*Thirlmere „	120·8	156·7	58·6	57·35
Benevolent Asylum—				
Born in the Institution	22·5	22·9	14·6	47·65
Admitted... ..	36·9	37·0	36·3	59·75
State Children's Relief	151·7	168·4	52·1	26·68
„ Protection..	183·1	209·9	66·1	28·49

* Established in 1907.

A similar investigation made as to the extent of mortality of children under 3 years of age yielded the following averages:—

Control.	Average Duration in Days.			Death rate per cent. of Exposed.
	Of all Cases.	Of Survivors.	Of Deceased.	
Infants' Home, Ashfield	171·6	185·8	76·5	22·57
*Nurse Frost's Home	96·7	140·7	56·7	74·07
Waitara „	151·2	259·5	59·4	62·41
*Thirlmere „	187·7	259·0	79·0	48·05
Benevolent Asylum—				
Born in the Institution... ..	23·1	23·5	16·2	47·29
Admitted... ..	38·2	38·0	40·5	51·93
State Children's Relief	413·5	447·0	71·2	7·42
„ Protection	392·6	456·5	71·8	13·75

*Established in 1907.

The majority of deaths are due to gastro-enteritis, and the State Children's Relief Department emphasises the need which exists for a proper hospital to deal with this disease.

From an earlier investigation, covering the period 1898-1902, the death-rates deduced were as follows:—

Control.	Death-rates of Children of ages under—	
	One year.	Three years.
	per cent.	per cent.
Infants' Home, Ashfield	38·91	26·93
Waitara „	83·31	78·06
Benevolent Asylum—		
Born in the Institution	58·46	58·46
Admitted	78·23	66·56
State Children's Relief	43·49	8·96
„ Protection	35·27	23·60

The Children's Protection Act, 1902, requires the careful supervision of children under 3 years of age who are boarded-out privately apart from their mothers, and provides for the registration of nursing homes.

A Boarding-out Officer is vested with the necessary powers of supervision, and any person who receives for payment a child under 3 years of age, must notify the officer, and where two or more children under 3 years are received, the foster-home must be registered. There are provisions for the over-sight of children engaged in public performances, and for the registration of all births (including still-births) which occur in maternity homes.

The transactions under this Act during the last six years may be seen in the following statement:—

Particulars.	1905.	1906.	1907.	1908.	1909.	1910.
Registrations from Lying-in Homes ...	2,614	2,839	2,882	2,774	2,683	4,203
Foster Homes registered... ..	85	75	112	96	91	114
Children registered	1,531	1,436	1,584	1,557	1,235	1,138
„ died	108	102	101	85	76	51
„ discharged from supervision...	719	681	616	851	636	511
„ under supervision at 31st Dec.	704	653	867	621	523	576
Theatre Licenses for Children	133	183	179	201	257	188

Within the Metropolitan area medical attention is enforced for all infants up to 12 months old, who come under the provisions of the Act, and those placed with foster-mothers must be taken fortnightly by their custodians to a Children's Hospital, where they are weighed, and if ill, treated, and their custodians are advised as to methods of further treatment. The total number of children under supervision during 1910 was 1,138, of whom 51 died, gastro-enteritis accounting for 25, marasmus 10, gastritis and convulsions being other important causes of death.

Two inspectors are specially charged with the supervision of the conditions of infant life in the city and suburbs, and altogether the inspectorial staff attached to the department made some 26,000 visits of inquiry and inspection during the year.

DEPENDENT AND NEGLECTED CHILDREN.

To the State Children's Relief Board are entrusted the supervision and guardianship of dependent and of neglected children, and juveniles committed from the Children's Courts. Under the provisions of the State Children's Relief Act, 1901, embodying the original Act of 1881, under which the department was constituted, dependent children are boarded-out with approved guardians or with their own mothers, when the latter are widows or deserted wives with children under 12 years of age.

During the thirty years' operation of the Board, 21,993 children who have been removed for boarding-out, from State and other institutions, from asylums, and from hospitals have been cared for, and of the number, 17,495 children had been discharged to their parents or otherwise removed from the control of the Board, so that there were remaining under its charge on the 5th April, 1911, 4,498, of whom 2,551 were boys and 1,947 were girls. In addition to these children under direct control, the Board was paying allowances towards the support of 4,182 children under 12 years of age, living with their mothers, who are widows and deserted wives; the Board thus having the supervision of 8,680 children. Of these children, 2,651 (1,503 boys and 1,148 girls) were boarded out

to persons deemed to be eligible after strict inquiry by the Board, the rate of payment being usually 5s. per week, but in special circumstances ranging up to 10s. per week, the highest rates being paid for infants under 1 year, who require more than ordinary care. Strict supervision is exercised by the officers of the Board to prevent ill-treatment or neglect and in addition visiting ladies voluntarily assist in the various districts, keeping a constant watch upon the children, and the conditions under which they live.

The following statement shows the number of dependent children in the State as recorded for 1910 :—

Supported by the Government—	
State children boarded with foster parents, and inmates of Cottage Homes, Depôt, and Hospitals	2,976
Partly supported by the Government—	
Children living with their mothers, receiving allowances from State Children's Relief Department	4,182
Not supported by the Government—	
State Children—Apprentices	1,281
Adopted by foster parents without payment	241
Inmates of Private Institutions...	1,632
Total	10,312

A comparison of the number of destitute children at the end of each of the last ten years under the categories shown above is as follows :—

Year.	Supported by Government—State children boarded out or in homes, depôt, or hospitals.	Partly supported by Government—Children living with their mothers.	Not supported by Government.			Total.
			State Apprentices.	State children adopted without payment.	Inmates of private institutions.	
1901	2,237	3,265	1,334	149	1,446	8,431
1902	2,345	3,386	1,283	177	1,523	8,714
1903	2,401	3,435	1,194	184	1,541	8,755
1904	2,419	3,317	1,156	225	1,600	8,717
1905	2,390	3,146	1,246	254	1,591	8,627
1906	2,536	3,025	1,201	287	1,388	8,437
1907	2,707	3,633	1,285	210	1,485	9,320
1908	2,779	3,980	1,270	198	1,565	9,792
1909	2,938	4,097	1,256	196	1,747	10,234
1910	2,976	4,182	1,281	241	1,632	10,312

The number of dependent children under the direct control of the Board is shown in the following table, for the five-year intervals since 1881 :—

Year ending April.	Boys.	Girls.	Total.	Year ending April.	Boys.	Girls.	Total.
1881	24	35	59	1907	2,230	1,794	4,024
1886	779	587	1,366	1908	2,373	1,829	4,202
1891	1,417	952	2,369	1909	2,453	1,794	4,247
1896	1,954	1,502	3,456	1910	2,539	1,851	4,390
1901	2,205	1,705	3,910	1911	2,551	1,947	4,498
1906	2,114	1,776	3,890				

The following table shows, for a period of five years, the ages of children when received by the Board :—

Age.	Year ending April—				
	1907.	1908.	1909.	1910.	1911.
Under 1 year ...	60	89	101	140	196
1 year ...	46	40	61	48	56
2 years ...	31	39	49	46	55
3 „ ...	26	27	35	45	34
4 „ ...	23	33	31	46	32
5 „ ...	29	49	43	40	48
6 „ ...	38	40	27	44	46
7 „ ...	42	48	40	46	45
8 „ ...	34	41	52	60	55
9 „ ...	46	45	65	65	55
10 „ ...	38	80	69	79	74
11 „ ...	55	70	72	84	88
12 „ and over ...	122	158	207	184	183
Unknown ...	106	141	130	84	32
Total ...	696	900	982	1,011	999

The increase shown upon comparison of the last four years with that of 1907, is due to the larger number of children placed under the control of the Board by the Children's Courts.

Of the 999 children shown above, for the year 1911, 627 were boarded out direct from the State Children's Depôt, 38 were received from the Benevolent Asylum, 306 were committed from the Children's Courts, and 28 from other sources.

The Depôt (Ormond House, Paddington) fulfils the conjoint functions of a central depôt for State children, and a shelter for children passing through the Children's Court. The operations of the depôt for the past five years are shown in the following figures :—

Year.	State Children.	Court Children.	Total.	Year.	State Children.	Court Children.	Total.
1907	1,275	1,082	2,357	1911	1,828	698	2,526
1908	1,435	960	2,395	Total...	7,850	4,344	12,194
1909	1,524	754	2,278				
1910	1,788	850	2,638				

The gross amount expended by the Government during the year ended March, 1911, on account of the services of the State Children's Relief Department was £94,064; of this amount £44,193 represented the cost of maintenance of children boarded-out apart from their parents, while allowances to widows and deserted wives towards the support of their children amounted to £26,979. Contributions by parents and relatives and repayments of maintenance allowances amounted to £3,712, being £293 more than was contributed in the previous year, but the department experiences the need for comprehensive and remedial legislation on the lines of the Destitute Persons' Act, of New Zealand, to enable the recovery of fuller maintenance contributions from any near relative of a destitute person.

The net cost of the department's services for the year ended April, 1911, was £90,352.

The rates of payment for children boarded-out with their mothers range from 2s. to 6s. per week, the average being 3s. per week, and in April, 1911, 914 widows and 654 deserted wives were in receipt of relief on account of

4,182 children under 12 years of age, the term "deserted wife" being construed to include wives technically deserted by being deprived of their husbands support, whether through insanity (125), imprisonment (93), or through detention of the husband in hospital (109), or in an asylum (63). Actual desertion was represented by 264 cases, being 40 per cent of the total number.

Of 2,955 children entirely supported by the department, 2,651 are resident as boarders with guardians, the remainder being in hospitals or cottage homes; the maximum number of children boarded-out in any one family is three, and payment for maintenance ceasing at age 12, the majority of children are apprenticed in terms of the State Children's Relief Act, but the necessity of raising the age of apprenticeship is apparent.

APPRENTICESHIP OF STATE CHILDREN.

The following statement shows the number of apprentices placed by the Board during the past five years :—

	1907.	1908.	1909.	1910.	1911.
Boys ...	194	244	270	338	291
Girls ...	154	165	151	208	169
Total ...	348	409	421	546	460

At the end of April, 1911, there were 1,281 apprentices (778 boys and 503 girls) still under indentures. The terms of indenture prescribe a wage payment and pocket-money on a specified scale, the wages being banked half-yearly to the credit of the apprentice; one-third of the accumulated amount paid over on completion of the apprenticeship, the balance remaining at interest till age 21 is attained. From 1887 to April, 1911, the total collections of the Apprentices Fund were £64,383 of which £49,031 had been paid over on completion of the indentures, and £15,352 remained to the credit of the fund. The majority of girls are apprenticed in domestic service, the boys going to farmers, orchardists, and artisans in country districts; as a preliminary to the apprenticeship system, and to give opportunity for the children in a wider range of industrial occupations, training homes are essential.

COTTAGE HOMES.

The first Cottage Home for dependent children requiring special treatment was opened at Mittagong in 1882; there are now nine at Mittagong, and three at Parramatta, all situated amid rural surroundings. Four of the Mittagong cottages form the Cottage Farm Home for truants and juvenile offenders committed from the Children's Court; with these exceptions the cottages are maintained for children who are unfit to be boarded out on account of ill-health or of physical or mental defects.

The homes form a valuable adjunct to the boarding-out system, 4,788 children having been treated since their establishment. The admissions and discharges during the last nine years were as follow :—

Year ended 5th April.	Admissions.	Discharges.	Year ended 5th April.	Admissions.	Discharges.
1903	184	147	1908	392	325
1904	180	178	1909	465	406
1905	222	225	1910	444	525
1906	157	169	1911	370	383
1907	306	271			

On the 1st April, 1911, 246 children remained in the various Homes, 151 boys and 95 girls, inclusive of 129 boys at the Cottage Farm Home; there were 6 boys and 18 girls in hospital.

Invalid and crippled children numbered 117, and were classified according to age, sex, and physical condition. The principal ailments are shown in the following statement:—

Debility	26	Skin Diseases	6
Weak Intellect	23	Other	20
Ophthalmia	19		
Crippled	13	Total	117
Epilepsy and Paralysis	10		

The nature of the infirmities frequently demands long detention in the homes. During the year certain apparently chronic cases of paralysis received special medical treatment and nursing at Lister private hospital, with satisfactory results.

The Cottage Farm Home at Mittagong provides suitable industrial occupation and training for boys committed from the Children's Court, and the products of the farm are available for the invalid children in the Cottage Homes. The boys on the farm home are taught bootmaking, carpentering, blacksmithing, and general farm-work. Since the opening of the home in October, 1906, 1,232 boys have been admitted and 1,103 discharged, boys who prove their trustworthiness being released on probation.

One home is reserved for feeble-minded children who are instructed according to kindergarten principles, and probationary farms are maintained at Dora Creek and Toronto to permit of the detention of mentally and morally deficient boys.

PROBATIONERS.

In connection with the operations of the Law Courts particulars have been given as to children brought before the Children's Courts. The majority of the children committed to gazetted institutions were sent to Mittagong Farm Homes, but a number of commitments were made to ungazetted establishments and large numbers of children are released on probation either directly from the Court or through the State Children's Relief Department, and it is noticeable that commitments to industrial and reformatory institutions have declined in proportion as the probation clause of the Neglected Children and Juvenile Offenders Act, 1905, have been applied; the same experience has been met in Victoria. The ages of children placed on probation range up to 16 years, viz.:—

	Boys.	Girls.		Boys.	Girls.
Under 10 years...	77	17	14 to 16 ...	278	45
10 to 12 ...	174	24			
12 to 14 ...	273	23	Total... ..	802	109

The probationary period extends from a few weeks to more than 3 years, but the majority of cases are for twelve months (438) or two years (372).

STREET TRADING.

Street trading is defined by law as hawking newspapers, matches, flowers, or other articles, singing, or otherwise engaging in any occupation for profit, in a public place. Licenses are issued by the State Children's Relief Department to boys under 16 years, and the trading hours prescribed for boys between ages 10 and 14 are from 7 a.m. to 7 p.m., being extended to 6 a.m. to 10 p.m. for boys over 14 years of age. Licenses are renewable six-monthly, and entail the wearing of an arm badge. Of 776 boys licensed in March, 1911, 717 were engaged in newspaper selling.

With regard to street trading and probation work, the State Children's Relief Department has some supervision over school attendance and effectively restricts the extension of truancy.

In connection with the effort of the State to promote the welfare of the child population, it is interesting to note that the President of the State

Children's Relief Board has been appointed a Royal Commissioner to investigate the treatment of delinquent and neglected children, and the whole question of infant nurture in Great Britain, Europe, and America, and to represent the State at the International Triennial Conference on child-life.

CHILD HYGIENE.

Medical Inspection of School Children.

In part Education of this Year Book some details have been given relating to the Medical inspection of children attending State schools; but as the school population represents, at least, one-seventh of the total population of the State, the question of physical fitness of children is of considerable importance to the community, and some further discussion is essential to a clear comprehension of the systematic effort necessary to prevent physical deterioration. In the effort to eliminate physical defects disadvantageous to educational progress, to prevent the spread of epidemic disease, and to check children's ailments in their early and curable stages, initiatory observations were made and measurements obtained from a limited number of public school pupils during 1901. Since that period considerably more attention has been given to the question of physical fitness, and Swedish drill, exercises, and sports have been embodied as essentials in the school curricula. As a consequence of the introduction of such a system of physical training, even over the limited period since it was initiated the latest records may be expected to show a definite improvement in physique as compared with those obtained in early investigations. The first systematic medical inspection and anthropometric survey of the children attending State schools were commenced in 1907, and the inaugural work was restricted to the more populous centres of Sydney and Newcastle, the curtailment assuring a degree of thoroughness and accuracy otherwise unattainable with a limited staff. In the first year two medical officers were engaged on the inspection work; subsequently the number was increased to three, and during the three years' inspection 135 distinct schools with an enrolment of 80,000 pupils were visited, and over 50,000 physical records taken. The duty of the inspecting officer is to discover and diagnose, not to treat, ailments.

The following statement shows the extent of the inspection work during the three years, 1907-1910:—

	May, 1907, to April, 1908.	April, 1908, to June, 1909.	July, 1909, to July, 1910.
Schools visited	50	98	127
Enrolment	36,118	66,000	75,854
Children presented... ..	4,000	14,360	16,036
Complaints disclosed—Boys and girls	4,795	22,824	21,558

In the first investigation the majority of cases revealed defective eyesight, and nasal obstruction; and this experience was repeated in subsequent investigations with the addition among the ailments disclosed as prevailing extensively, of throat affections. The number of complaints recorded above does not represent the full extent of the defectiveness prevalent among children attending the State schools visited, as pupils known to be undergoing treatment privately were not included. As the results of the 1909-10 inspection confirmed the earlier disclosures recorded in detail in the previous issues of the Official Year Book of New South Wales, further repetition is unnecessary. For about 25 per cent. of the children shown to be suffering the teachers' records show that immediate action was taken by the parents to remedy the condition notified.

DENTAL INSPECTION.

In 1904 the Dental Association of New South Wales voluntarily commenced inspection in a school in a relatively poor suburb of Sydney; subsequently the area of inspection was increased to cover metropolitan schools. During 1908, records of inspection of 4,076 children were received, viz., 2,631 boys and 1,445 girls; 30 per cent. of the boys, and 32 per cent. of the girls were recorded as having clean mouths; and for 13 per cent. of boys and 12 per cent. of girls the teeth were in very bad condition. Analysis shows that 94 per cent. of the children have decayed teeth, and this experience is comparable with those of Germany, Italy, Russia, and the United States. The teeth of girls were found to be more defective than those of boys both as regards the first and second sets, and the permanent were generally found to be far less defective than the first set. The average number of defective teeth was 4·4 per boy, and 5·2 per girl; the periods of greatest defect were (a) ages 6-7, and (b) ages 14-16 for boys and 12-15 for girls. During 1908-9 the examination was extended by the Dental Association of New South Wales to various country centres, the inspection covering 3,574 children, viz., 1,802 boys and 1,772 girls; again the teeth of girls were found to be more defective than the teeth of boys, and the defects were far more common in the first than in the permanent set. On the whole, the permanent teeth of country children were rather less defective than of city children. The same periods of excessive decay were noted for country as for city children.

ANTHROPOMETRIC SURVEY OF SCHOOL CHILDREN.

In conjunction with the medical inspection an anthropometric survey of children is made in order to show the physical development in relation to mental progress, and the effect of environment on physical condition, as well as to establish a basis of comparison of the children of this State with those of other countries. The investigation is based on the measurements of height, weight, and vision made by the teachers in Sydney and various country districts.

The anthropometric survey was commenced in 1907. The following table shows the averages of measurements in height and weight deduced from 1908 to 1910:—

Age last birthday.	April, 1908-June, 1909.				July, 1909-June, 1910.				April, 1908-June, 1909.				July, 1909-June, 1910.			
	Boys.								Girls.							
	Average Height.	Average Weight.	Average Height.	Average Weight.	Average Height.	Average Weight.	Average Height.	Average Weight.	Average Height.	Average Weight.	Average Height.	Average Weight.	Average Height.	Average Weight.		
Years.	in.	lb.	in.	lb.	in.	lb.	in.	lb.	in.	lb.	in.	lb.	in.	lb.	in.	lb.
3	...	...	40·66	39·03	...	...	40·04	37·91	...	...	40·04	37·91	...	...	40·04	37·91
4	41·48	39·73	42·85	42·17	40·47	38·42	42·08	40·16	41·48	39·73	42·85	42·17	40·47	38·42	42·08	40·16
5	42·43	41·63	43·11	43·04	42·02	40·32	42·70	41·31	42·43	41·63	43·11	43·04	42·02	40·32	42·70	41·31
6	44·28	44·89	44·72	45·06	44·18	43·90	44·49	44·61	44·28	44·89	44·72	45·06	44·18	43·90	44·49	44·61
7	46·52	49·91	46·47	49·49	46·13	48·25	46·42	48·42	46·52	49·91	46·47	49·49	46·13	48·25	46·42	48·42
8	48·27	53·54	48·59	53·72	48·11	53·09	48·09	52·58	48·27	53·54	48·59	53·72	48·11	53·09	48·09	52·58
9	50·44	58·67	50·43	58·61	49·97	57·46	49·93	57·57	50·44	58·67	50·43	58·61	49·97	57·46	49·93	57·57
10	52·19	63·58	52·23	64·03	51·94	62·87	51·91	62·83	52·19	63·58	52·23	64·03	51·94	62·87	51·91	62·83
11	53·86	68·86	53·86	69·25	53·96	69·61	53·98	69·74	53·86	68·86	53·86	69·25	53·96	69·61	53·98	69·74
12	55·55	79·94	55·80	75·61	56·02	77·29	55·96	77·42	55·55	79·94	55·80	75·61	56·02	77·29	55·96	77·42
13	57·43	82·63	57·48	85·74	58·31	86·95	58·13	86·11	57·43	82·63	57·48	85·74	58·31	86·95	58·13	86·11
14	60·29	94·62	60·14	94·14	60·43	96·99	59·87	94·93	60·29	94·62	60·14	94·14	60·43	96·99	59·87	94·93
15	63·00	108·78	62·69	108·11	61·19	105·40	61·47	104·40	63·00	108·78	62·69	108·11	61·19	105·40	61·47	104·40
16	65·36	122·17	64·74	118·12	63·20	110·93	62·01	112·70	65·36	122·17	64·74	118·12	63·20	110·93	62·01	112·70
17	66·76	132·02	66·29	128·99	63·02	114·63	62·66	114·35	66·76	132·02	66·29	128·99	63·02	114·63	62·66	114·35
18	67·56	136·09	66·70	134·16	63·02	120·60	63·34	116·26	67·56	136·09	66·70	134·16	63·02	120·60	63·34	116·26
19	70·00	151·50	67·29	137·21	62·97	120·81	63·34	119·45	70·00	151·50	67·29	137·21	62·97	120·81	63·34	119·45

A comparison of city with country children shows that, generally, the country children are the taller, but the city children, at most ages, are the heavier. As regards visual conditions of the public school children, 45,924 records were tabulated in 1908-9 and 41,097 in 1909-10, and it was found that in the earlier year 73·3 per cent. had normal vision, 10·9 per cent. were below normal in one eye, and 15·8 were below normal in both eyes; in the latter year 78·8 per cent. had normal vision: 9·9 per cent were below normal in one eye, and 11·3 per cent. were below normal in both eyes. City children have more defective eyesight than country children, and girls have weaker vision than boys. Visual defects were found most frequently at the early ages.

CHEST MEASUREMENTS.

To compare the physical condition of children in this State with that of children in other countries on the basis of lung capacity, chest measurements of 2,050 boys at selected city schools were recorded during 1908-9, and are of value as indicating the variation in measurements of boys at different ages in this State. For purposes of comparison with other communities the records are of little value unless the conditions under which the measurements are taken are known to be uniform for the countries under comparison, and failing the necessary uniformity reliance is placed upon records of height and weight as subject in a slight degree only to the influence of varying conditions.

The records of chest measurements taken disclose that under fairly uniform conditions boys in the State schools in Sydney, maintain a standard equal to those of other countries. The circumference of the chest in the cases of Sydney boys increases gradually up to the twelfth year, after which there is a period of more rapid growth for four years, the maximum increase being recorded between the fourteenth and fifteenth years. This period of rapid growth corresponds to that noted for height and weight, and the mean chest girth is rather less than half the average height of the child at stated ages.

Comparison with the records obtained in Great Britain, the United States of America, Poland, and Tasmania, shows the favourable results of the New South Wales investigations. Sydney measurements were taken over the bare skin, the records being the mean of observations at full expansion and full contraction. Tasmanian measurements are over shirt and vest.

Following are the figures obtained :—

CHEST GIRTH.—Average measurements of Boys of various countries.

Age last Birthday.	Great Britain (Anthrop. Comm.).	U.S. America (Kline).	Tasmania—Hobart (Elkington).	Poland (Landsberger).	New South Wales—Sydney.
	inches.	inches.	inches.	inches.	inches.
7	.....	.....	23·9	21·8	23·6
8	.....	.....	24·8	22·8	23·9
9	.....	23·48	25·48	23·7	24·5
10	26·1	24·30	25·7	24·4	25·1
11	26·53	25·34	26·34	25·1	25·9
12	27·2	26·28	27·1	25·6	26·7
13	28·03	27·28	27·4	27·2	27·7
14	28·46	28·55	28·1	.....	28·9
15	29·74	29·90	29·0	.....	30·6
16	31·53	.....	.....	.....	31·8
17	33·64	.....	.....	.....	32·7
18	34·19	.....	.....	.....	33·5

In connection with the prevalence of defects of vision in the schools, it may be of interest to detail the results of recent investigations made in Tasmanian schools as to the cause and cure of defective vision. The hygiene

of the eye is dependent, to a very great extent, on the lighting of the school-room, and the construction of the desks, and general furniture, but even more on the character of the work, particularly sewing and reading. As in the New South Wales experience, the eyesight of girls is generally worse than of boys; and in some of the sewing classes visited, work of girls of 12-14 years was examined which showed 40-48 stitches per inch done in rooms not brilliantly illuminated.

As regards reading, the cause of much ocular defectiveness may be traced in the type of the books used. The standard type adopted as the result of scientific investigation in German schools, on the basis of Roman "n" as measurement should not be less than 1.5 mm. in height; the smallest leading allowable being 2.5 mm., with a maximum line length of 9 mm., and a down-stroke of 0.3 mm. thickness. Practically none of the books examined conformed to these standards, the failure being particularly noticeable in books relating to music and poetry. To remedy these defects in ocular hygiene, proper illumination of school-rooms is essential, and attention should be given to the matter of hygienic furniture, standard-type books, and scientific instruction in sewing.

COST OF DISEASE.

The moneys contributed directly by the State each year toward the relief of sickness and destitution cover only a small proportion of the actual loss resulting to the community from disease, and the consequent destitution entailed. To quote the full money cost is impossible, since so much private expenditure goes unrecorded, but an approximation might be obtained by summing all the forms of expenditure which the treatment or prevention of diseases demands, including items under the following heads:—

- Expenditure for Sickness, at General Hospitals and Public Institutions, Mental Hospitals, Asylums, and Convalescent Homes.
- Income of Private Practitioners, and Consultants.
- Expenditure on Drugs purchased privately, School Medical Services, Preventive Work, *i.e.*, by the Board of Health, Municipal and Shire Councils, under Employers Liability and Workmen's Compensation Acts, Friendly Societies, and similar Institutions.

In determining the cost of disease and destitution, account must be taken of sickness and death as well as old-age, which involves impairment of function, for disease is to be taken as any degree of depression below a normal standard, resulting in interference with work, or requiring medical aid. The further question may arise as to whether the normal standard of a community or of an individual is healthy or unhealthy, but in any case every derangement of function, and deviation from a healthy normal standard must be paid for; and the cost falls partly upon the community in the shape of an inefficient or lowered production, and of necessary costs of maintenance of relief institutions generally; and partly on the individual in the form of a lowered physical capacity and costs of medical attendance and medicine.

It is not however, to be taken that the expenses necessarily involve permanent loss, but rather that they represent a judicious investment in promoting the prompt recovery of full working power, by eradicating disease, and so eliminating destitution, which in the majority of cases ensues only from inefficiency, and should therefore be relegated to the care of the physician, rather than be the subject for charitable and temporary relief.

In the following pages some idea is given of the extent to which active effort is made to eliminate destitution.

HOSPITALS.

Public Subsidised Hospitals.

General hospitals for the treatment of the sick numbered 139 at the end of 1910—20 being in the metropolitan area, and 119 in country districts; the accommodation provided was 4,969 beds, viz., 2,011 in the metropolitan hospitals, averaging 101 beds per hospital; and 2,958 in country districts, averaging 25 beds per hospital. The cubic capacity of metropolitan hospitals was 2,905,620 cubic feet, averaging 1,445 cubic feet per bed; in the country hospitals the average was 1,219 cubic feet, the average for New South Wales being 1,311 cubic feet per bed. The following statement shows the extent to which hospital services have increased in the ten years, 1901—1910:—

	1901.		1910.	
	Metropolitan.	Country.	Metropolitan.	Country.
Hospitals	15	103	20	119
Beds	1,453	1,938	2,011	2,958
Indoor patients during year	16,919	16,093	28,227	26,456
Outdoor patients (general)	72,645	7,614	100,270	12,219
Indoor patients per 1,000 of mean population	24.1		33.7	

Private Hospitals.

In addition to these subsidised hospitals which are open to the public and are subject to the Public Hospitals Act, 1898, and its amendments, there exist numerous private hospitals which receive no revenue from the State, and prior to 1909 were entirely free of State supervision. But since the passing of the Private Hospitals Act, 1908, a private hospital which includes any place in which medical, surgical, or lying-in cases may be received exists only by virtue of a license issued annually by the Board of Health; the premises are inspected and both the management and the premises must be approved before a license issues. During 1910, 657 applications for registration were received, being 136 from Sydney and suburbs, and 521 from country districts. The licenses issued numbered 454, viz., 117, Sydney, and 337 country.

The following statement shows the classification of these hospitals:—

Type of Hospital.	Sydney.	Country.	Total.
Medical, surgical, and lying-in	36	106	142
Medical or surgical... ..	9	11	20
Lying-in	59	184	243

In the majority of these hospitals the accommodation provided was 2 beds; only in 14 Sydney hospitals were more than 20 beds available. A register of hospital and general nurses is kept for each institution, and the licensees and resident managers must be qualified. In 377 hospitals the licensee was the resident manager.

STAFFS AND PATIENTS IN PUBLIC HOSPITALS.

The following statement shows the medical and nursing staffs attached to public hospitals during 1910 :—

	Medical Staff.		Nursing Staff.			
	Honorary.	Salaried.	Probationers.	Nurses.	Others.	Total.
Metropolitan ...	330	51	294	228	265	787
Country ...	148	188	222	177	241	640
Total ...	478	239	516	405	506	1,427

During the year 54,683 persons were under treatment as indoor patients, viz., 28,227 in metropolitan and 26,456 in country hospitals and the number remaining in hospital at the close of the year was 3,089 (1,795 males and 1,294 females). The average time during which each person was under treatment was: of those who died—males, 23·5 days, and females, 17·4 days; and of those who recovered—males, 22·1 days, and females 21·0 days.

The following statement shows the number of indoor patients treated, and the discharges and deaths during the past ten years :—

Year.	Total Patients under treatment.	Number Discharged.	Deaths.		Number of Patients at the close of year.
			Number.	Per cent. of treated.	
1901	33,012	28,288	2,477	7·5	2,247
1902	34,426	29,595	2,594	7·5	2,237
1903	37,011	31,860	2,660	7·2	2,491
1904	38,430	33,532	2,431	6·3	2,467
1905	38,646	33,581	2,529	6·5	2,536
1906	41,552	36,402	2,576	6·2	2,574
1907	44,667	39,133	2,767	6·2	2,767
1908	47,349	41,391	3,020	6·4	2,938
1909	50,541	44,208	3,194	6·3	3,139
1910	54,683	48,370	3,224	5·9	3,089

The increase in the number of patients treated has been steady, and has been more rapid than the growth of population; the proportion of the population treated in hospitals having risen gradually from 24·1 per thousand in 1901 to 33·7 in 1910.

The death-rate per 100 persons under treatment during 1910 was 5·9 as compared with 7·5 in 1901. The death-rate in hospitals in New South Wales is apparently high, but this to a large extent is due to the number of deaths from accidents, which form a considerable proportion of the total causes of deaths registered. A majority of the accidents are treated in the hospitals; and these institutions, especially in country districts, are maintained principally for the treatment of surgical cases.

SICKNESS IN HOSPITALS.

The statement below shows the principal diseases which were treated during 1910, and the number of patients who recovered, who died, who were relieved or unrelieved. There were, in addition, a number remaining in hospitals at the end of the year:—

Disease.	Number of those discharged during the year who—						Total under Treatment during 1910.	
	Recovered.		Were Relieved.	Were unrelieved.	Died.		Males.	Females.
	Males.	Females.	Both Sexes.	Both Sexes.	Males.	Females.		
Typhoid ...	1,051	684	14	6	139	76	1,318	855
Diphtheria and croup ...	1,178	1,570	86	6	46	59	1,322	1,742
Influenza ...	511	233	16	1	5	...	547	241
Tuberculosis of lungs ...	117	27	551	115	171	33	980	368
Tuberculosis, other organs ...	95	77	232	36	46	28	351	258
Venereal Diseases ...	250	81	408	34	8	5	550	325
Cancer ...	272	145	284	225	130	59	740	439
Rheumatism ...	603	246	405	9	8	11	947	417
Diseases of the eye ...	353	256	436	64	...	...	739	433
Heart diseases ...	77	37	594	33	177	61	736	314
Hæmorrhoids, &c. ...	421	249	85	14	1	2	504	303
Diseases of nose ...	872	870	19	34	...	1	899	905
Bronchitis ...	406	223	182	4	35	11	575	302
Pneumonia ...	954	544	31	4	186	91	1,208	669
Gastritis ...	377	339	151	9	4	5	501	432
Diarrhoea and enteritis ...	479	299	70	14	111	101	676	460
Intestinal obstruction ...	684	249	44	18	32	22	792	297
Appendicitis, typhlitis ...	896	941	109	14	47	35	1,072	1,102
Nephritis, Bright's disease ...	84	80	206	17	120	51	368	216
Diseases, female genital organs ...	...	2,773	277	77	...	48	...	3,311
Diseases of skin ...	959	458	210	16	11	14	1,174	568
Accidents ...	4,094	788	707	63	234	66	5,247	1,048
All Causes ...	19,571	18,275	8,121	1,342	2,077	1,145	29,078	

Altogether, as will be seen from the table, there were available full particulars regarding 53,547 patients—29,078 males and 24,469 females.

The recoveries represent 70·7 per cent. of cases treated, viz., 67·3 per cent. of males, and 74·7 per cent. of females.

DURATION OF ILLNESS.

The following figures show the condition under which discharges during 1910 were effected for all cases, and the average number of days' illness suffered:—

	Proportion Discharged.		Average Duration of Illness.	
	Males. per cent.	Females. per cent.	Males. Days.	Females. Days.
Recovered ...	71·6	78·8	22·1	21·0
Died ...	7·6	4·9	23·5	17·4
Relieved ...	18·0	13·8	...	...
Unrelieved ...	2·8	2·5	...	...
	100·0	100·0	23·6	21·9

FATALITY RATES IN AGE-GROUPS.

For all cases of sickness treated in hospital, the fatality rates represented 7.6 for males and 4.9 for females, the various age-groups showing as follows:—

	Fatality Rates per cent of Cases treated.				Fatality Rates per cent of Cases treated.	
	Males.	Females.			Males.	Females.
Under 1 year ...	28.3	29.4	45—64 years ...	10.5	8.2	
1—4 years ...	7.8	9.8	65 and over ...	17.3	14.0	
5—19 „ ...	2.9	2.9	All ages ...	7.6	4.9	
20—44 „ ...	5.3	3.3				

OUT-DOOR PATIENTS.

During 1910, 112,489 patients were treated, through the various hospitals, viz., 100,270 at metropolitan hospitals, and 12,219 at country hospitals, as out-door patients of the general hospitals; and 5,910 were treated at the metropolitan dental hospital.

SUBSIDIARY SOCIAL SERVICES.

Supplementing the activities of the larger institutions, which fill an obviously necessary place in the social sphere, there exist various minor organisations, some of which are subsidised by the Government.

In the work of rendering first aid, and transporting invalid or injured persons, four organisations are engaged, viz., the St. John Ambulance Association and Brigade, the Civil Ambulance and Transport Corps, and the New South Wales Ambulance Association, none of which are subsidised by the Government.

In the matter of nursing the District Nursing Association, the Bush Nursing Association, and the Sydney Day Nursery are active. The Sydney District Nursing Association restricts its operations to Sydney and its suburbs, and during 1910 the nurses connected with the Association made 21,322 visits to 712 patients. The Association is maintained by public subscriptions.

To provide a measure of nursing and hospital services in districts sparsely settled or remote from an established hospital the Bush Nursing Association was instituted during 1911, and during its first year four nurses were installed, viz., one each at Jindabyne, Euston, Lake Cudgellico, and Carinda. In each town a cottage was furnished and equipped for the use of the nurse; the costs of equipment and services are guaranteed by local committees, promoted and subsidised by the association which was inaugurated with an endowment provided by public subscriptions, and is maintained by annual contributions subsidised by the Government. During 1911-12 the Government subsidy was £100. Among other public institutions engaged in social service may be mentioned the Royal Life-Saving Society, with a State subsidy for 1910 of £250; the New South Wales Public Disaster Relief Fund (subsidy £300), the Royal Shipwreck Relief and Humane Society of New South Wales (unsubsidised), and the Surgical Appliance Aid Society, which receives an annual subsidy of £50. The Sydney Medical Mission treated 4,158 patients during 1910, dispensed medicines, and visited numerous patients.

HOSPITAL FINANCE.

The following statement shows the revenue and expenditure for the year 1910 of the public hospitals :—

Revenue and Expenditure.	Metropolitan.	Country.	New South Wales.
Receipts—	£	£	£
Government aid	72,814	73,824	146,638
Subscriptions and donations	40,222	42,644	82,866
Patients' contributions	22,499	22,918	45,417
Sports and Entertainments	2,907	19,824	22,731
Miscellaneous	9,532	7,164	16,696
Total Receipts	£ 147,974	166,374	314,348
Expenditure—			
Building and repairs	13,077	20,575	33,652
Salaries and Wages	48,470	58,587	107,057
Provisions, Stores, &c.	66,664	67,106	133,770
Miscellaneous	15,230	14,604	29,834
Total Expenditure	£ 143,441	160,872	304,313

The expenditure in connection with the Coast Hospital, Little Bay, has been included in the figures stated above; that institution is controlled entirely by the Government, and at the hospital, which has 314 beds, 22 cots, a nursing staff of 90 including 56 probationers, and a medical staff of 14, of whom five were salaried, 3,781 patients were treated during the year; the cost of the establishment being £22,230.

According to the hospital accounts the total expenditure of the Government in connection with the hospitals in the metropolitan area in 1910 was £72,814; and on the country hospitals the expenditure reached £73,824, the total expenditure for the State being £146,638. The special grants made accounted for £11,812 for country and £6,348 for metropolitan hospitals, the year's subsidy being £62,012, and £66,466 to country and metropolitan hospitals respectively. These amounts are irrespective of payments for attendance on aborigines, and of expenses in connection with special outbreaks of disease, which are met from the general Medical Vote, nor do they include cost of maintenance of a large number of chronic and incurable cases in destitute asylums.

GROWTH OF HOSPITAL REVENUE.

Comparison of the revenue and expenditure of public hospitals during the ten years 1901–1910 shows the rapidity with which their expenditure has expanded, viz. :—

		Revenue.					Expenditure.				
		State aid.	Subscriptions and Donations.	Patients' contributions.	Other.	Total.	Building and repairs.	Salaries and Wages, Provisions, Stores, &c.	Other.	Total.	
		£	£	£	£	£	£	£	£	£	
1901	Metropolitan ..	45,521	16,236	13,464	7,946	83,167	6,029	69,698	6,577	82,304	
	Country ..	45,842	34,703	10,234	8,781	99,560	11,325	71,701	10,788	93,314	
1905	Metropolitan ..	54,345	24,065	13,800	10,376	102,586	10,992	80,539	13,792	105,323	
	Country ..	46,631	48,365	13,835	4,448	113,279	23,549	87,276	9,016	119,341	
1910	Metropolitan ..	72,814	40,222	22,499	12,439	147,974	13,077	115,134	15,230	143,441	
	Country ..	73,824	42,644	22,918	26,988	166,374	20,575	125,693	14,604	160,872	
	Total N.S.W. ..	146,638	82,866	45,417	39,427	314,348	33,652	240,827	29,834	304,313	

Taking maintenance as representing the items of constant expenditure, the increase for metropolitan hospitals, as between 1901 and 1910, represented 66·1 per cent.; for country hospitals, 75·5 per cent.; the average for New South Wales being 70·9 per cent. Over the same period the increases in the principal items of revenue were as follows :—

	Metropolitan. per cent.	Country, per cent.	Total. per cent.
State aid	60·0	61·0	60·5
Subscriptions and donations ...	147·7	22·9	62·7
Patients' contributions	67·1	123·9	91·7
All revenue	77·9	67·1	72·2

HOSPITAL SATURDAY FUND.

With the object of increasing the revenue of the hospitals derivable from public subscriptions, the Hospital Saturday Fund was inaugurated in 1895. The amounts collected from the public, and distributed to the hospitals, are shown for five-year intervals since 1895, viz. :—

Year.	Amount collected. £	Amount distributed. £	Year.	Amount collected. £	Amount distributed. £
1895	3,548	3,400	1910	8,491	7,900
1900	4,302	4,000	1911	8,771	8,100
1905	4,832	4,400			

VACCINATION.

During 1910, 280 persons were vaccinated in New South Wales, the cost to the State being £38. Complete information on this subject may be obtained upon reference to part Vital Statistics of this Year Book.

INSANITY.

Under the Lunacy Act, 1898, the Judge in Equity is constituted a court to deal with matters relating to the declaration of any person as of unsound mind or incapable of managing his own affairs, and to the appointment of a committee of his estate; the Master in Equity, as Master in Lunacy, is clothed with all the powers of such a committee, and controls trust funds which at December, 1910, amounted to £195,637. The Act authorised the appointment of an Inspector-General of Insane, who is empowered to visit every hospital, reception-house, ward, cell, or licensed house, and to inquire generally as to the care, treatment, and health, mental and physical, of the patients. Persons deemed to be insane may be examined and detained on the order of a Justice; and in public hospitals, and in gaol establishments, wards are reserved for the reception and observation of insane patients, but special hospitals are maintained by the Government for their treatment and care. The number of such hospitals open during 1910 was eight, in addition to a hospital for criminal insane at Parramatta, a temporary hospital approaching completion on Rabbit Island, three licensed houses at Tempe, Ryde, and Picton; and reserved accommodation in the South Australian hospitals for patients from the Barrier District of New South Wales.

HOSPITALS FOR THE INSANE AND PATIENTS.

The extent of accommodation available in the various mental hospitals, and the number of patients in each institution at December, 1910, are shown in the following table :—

Institution.	Accommodation ordinarily available for persons.	Persons in Hospital at end of Year.			Persons admitted during the year.
		Male.	Female.	Total.	
Callan Park ...	911	547	404	951	412
Gladesville ...	952	676	382	1,058	418
Parramatta ...	1,255	831	437	1,268	103
Kenmore ...	767	543	407	950	85
Rydalmere ...	857	569	401	970	104
Newcastle ...	317	250	180	430	56
Morisset ...	109	140	...	140	...
Stockton ...	80	...	58	58	...
Total ...	5,248	3,556	2,269	5,825	1,178
Licensed Houses ...	....	16	66	82	43
Total ...	...	3,572	2,335	5,907	1,221

In the South Australian hospitals the patients from New South Wales numbered 14 men and 15 women ; in addition there were 104 men and 137 women on leave from various institutions, making the total number of the New South Wales population on the registers of the hospitals at the end of 1910, 6,177—viz., 3,690 men and 2,487 women.

In the following table is stated the average number of persons in hospitals for the insane at the close of each year, with their proportion per 1,000 of the population during quinquennial periods since 1876, and in comparison, the figures for 1910 :—

Period.	Average Number of Insane Persons.			Proportion per 1,000 of Population.		
	Males.	Females.	Total.	Males.	Females.	Total.
1876-1880	1,180	605	1,785	3.20	1.96	2.63
1881-1885	1,482	909	2,391	3.12	2.34	2.77
1886-1890	1,776	1,126	2,902	3.09	2.35	2.77
1891-1895	2,104	1,331	3,435	3.23	2.37	2.83
1896-1900	2,482	1,604	4,086	3.54	2.58	3.09
1901-1905	2,918	1,964	4,882	3.94	2.91	3.45
1906-1910	3,394	2,304	5,698	4.15	3.09	3.64
1910	3,512	2,330	5,842	4.15	3.00	3.51

From these figures it appears that the proportion of insane treated in the hospitals for insane is increasing steadily from period to period ; but, to ascertain the general insanity rate it is necessary to consider the extent to which patients are cared for in private houses, and the proportion of persons whose mental condition, while not calling for certification, might be relieved by treatment if provision were made for the admission of voluntary patients.

Each institution admitting new cases is provided with a mental hospital specially designed and fully equipped for the treatment of curable patients,

in separate buildings, so that a classification system can be ensured, and a high standard of nursing and care maintained.

Juveniles are sent to the Hospital for the Insane at Newcastle—an asylum reserved for imbecile and idiot children, and young people and those requiring special nursing; kindergarten classes undertaken in this hospital have proved of great benefit to the children attending. In connection with the State Children's Relief Department, a cottage home for feeble-minded children is maintained.

ADMISSIONS AND DISCHARGES.

The numbers of admissions and re-admissions to hospitals for the insane since 1876 are shown below in five-year periods:—

Period.	Admissions.			Readmissions.		
	Males.	Females.	Total.	Males.	Females.	Total.
1876-1880	1,164	610	1,774	203	145	348
1881-1885	1,441	801	2,242	116	131	247
1886-1890	1,615	972	2,587	156	105	261
1891-1895	1,843	1,116	2,959	217	201	418
1896-1900	1,980	1,278	3,258	300	259	559
1901-1905	2,488	1,621	4,109	415	365	780
1906-1910	2,708	1,724	4,432	518	410	928
1910	650	397	1,047	92	82	174

Prior to 1893 there was no law in force to prevent the influx of insane into the State, but in that year legislation rendered the owner, charterer, agent, or master of a vessel liable for the maintenance of any insane person landed in the State.

The steadily increasing number of admissions has resulted in so overtaxing the accommodation available in the large hospitals, as shown by earlier figures, that temporary accommodation had to be secured, and the opportunity was taken in 1910 of giving to selected patients experience of open-air treatment, they being housed in tents with wooden framework and flooring; the resultant benefit to health was regarded as highly satisfactory.

The next table shows, in quinquennial periods, the numbers of patients who were discharged from the hospitals, on account of recovery, permanent or temporary, or who died:—

Period.	Discharged.						Deaths.		
	Recovered.			Relieved.			Males.	Females.	Total.
	Males.	Females.	Total.	Males.	Females.	Total.			
1876-1880	578	301	879	93	104	197	461	143	604
1881-1885	624	394	1,018	88	78	166	529	226	755
1886-1890	732	531	1,263	76	47	123	630	344	974
1891-1895	815	633	1,448	108	99	207	742	350	1,092
1896-1900	880	737	1,617	125	131	256	887	364	1,251
1901-1905.	1,132	891	2,023	149	139	288	1,100	573	1,673
1906-1910	1,134	964	2,098	221	164	385	1,311	651	1,962
1910	256	212	468	38	37	75	275	150	425

Analysis of the direct causes of deaths as certified, during 1910, shows the predominance of brain diseases generally, and of paralysis. Following are causes of death in their order of importance :—

	Males.	Females.	Total.
Inflammation and other Brain Diseases ...	42	25	67
General Paralysis	48	6	54
Other Cerebral Diseases	22	24	46
General Debility and Old Age	30	15	45
Pulmonary Consumption	25	...	37
Diseases of Heart and Blood-vessels	22	15	37
Inflammation of Lungs, Pleura, and Bronchia...	21	14	35
Abdominal Diseases	31	28	59
Other Diseases	31	11	42
Accident and Suicide	3	...	3
Total	275	150	425

CAUSES OF INSANITY.

On the admission or re-admission of patients to hospitals or reception houses, the causes of insanity, apparent or assigned, are verified; the records gathered for 1910 show that among the exciting causes of insanity intemperance in drink is most prominent, particularly among men; among predisposing causes the most important are old age, ascertained congenital defects, and hereditary influence, and mental worry through adversity. In the cases of 100 men and 81 women earlier attacks were traceable, than those which were responsible for their admissions in 1910.

In connection with the treatment of feeble-minded persons, on scientific lines, the trend of modern method is towards segregation and their treatment in establishments specially adapted for the purpose. Grave consideration has been given to the question in England, in the United States, and Canada, and at the Medical Congress held in Sydney during 1911, the subject was fully discussed, in view of its national importance, and its social reactions on the healthy minded among the population. The suggested policy in regard to the feeble-minded demands the examination of children in all schools, so as to ascertain exactly the proportion of feeble-minded, and thereupon the establishment of special schools where individual attention under special teachers may be assured. Naturally, among a number of feeble-minded persons (adults or children), will be many who are fairly normal, and capable of considerable mental development; thence the capacity may decline through the grades of those who lack resource, judgment, initiative, or even intelligence, to those who are absolutely without mental equipment and school knowledge. A proper system of classification is essential to any attempt at improvement through the development of skill in some form of manual work, and the formation of normal habits. As regards those who become dependent on the State, or who infringe the law, oversight and supervision are already provided, but more comprehensive measures are necessary to safeguard the community, and properly protect and educate all feeble-minded persons.

COST OF MAINTENANCE.

The average cost of maintaining insane patients in Government hospitals during the year 1910 was about 12s. 2½d. per head, of which the State paid 10s. 0½d., the balance being derived from the estates of the patients themselves, or from their friends. The subjoined table shows the average weekly cost per head, and the average private contributions, from 1901 to 1910 :—

Year.	Cost of maintenance of Patients.	Cost per head to State.	Contribution per head from private sources.	Total weekly cost per head.
	£	s. d.	s. d.	s. d.
1901	123,531	9 5½	1 9½	11 2½
1902	143,253	10 11½	1 7½	12 7
1903	151,309	10 10	1 10½	12 8½
1904	139,974	9 5½	1 10½	11 4½
1905	137,971	8 9½	2 0½	10 10
1906	143,245	8 8½	2 0½	10 9½
1907	149,728	8 9	2 1½	10 10½
1908	165,428	9 8½	2 2½	11 10½
1909	166,528	9 6½	2 2½	11 8½
1910	181,482	10 0½	2 2½	12 2½

DURATION OF TREATMENT.

The duration of treatment of completed cases shows that, during 1910, of 468 cases recovered, viz., 256 men and 212 women, the majority had been under treatment ranging from one to six months, or in more stubborn cases from one to two years. The following table shows the duration of treatment of those who recovered and those who died during 1910 :—

Length of Residence in Institution.	Recovered.			Died.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 month ...	7	6	13	31	14	45
From 1 to 3 months	75	24	99	28	17	45
„ 3 6 „	64	34	98	16	12	28
„ 6 9 „	27	26	53	22	10	32
„ 9 12 „	15	20	35	14	7	21
„ 1 2 years	33	60	93	38	14	52
„ 2 3 „	13	20	33	16	10	26
„ 3 5 „	14	12	26	30	21	51
„ 5 7 „	2	3	5	16	11	27
„ 7 10 „	2	4	6	14	10	24
„ 10 12 „	2	1	3	9	1	10
„ 12 15 „	2	2	4	11	12	23
Over 15 years ...	...	...	...	30	11	41
Total ...	256	212	468	275	150	425

SUPPLEMENTARY INSTITUTIONS.

In addition to hospitals for the treatment of sickness or disease, there exist, both in the metropolis and in the country, other institutions for the alleviation of distress in its various forms, such being the homes for women, and for the blind, deaf, and dumb; for the relief of consumptives; for granting casual aid to indigent persons; for the help of discharged prisoners.

The Infants' Home at Ashfield, the Royal Alexandra Hospital for Children at Camperdown, the Institution for the Deaf and Dumb and the Blind at Darlington, besides other institutions in different parts of the State, receive help from the Government; but they are maintained principally by private contributions. The management of these institutions for the relief of the sick is usually in the hands of committees elected by persons who have subscribed towards their support.

During 1910 the recorded admissions to the various charitable institutions numbered 12,124, viz., 7,806 men and 4,318 women, and at the end of 1910 there were 6,455 persons in the institutions, of whom 1,912 were children.

GOVERNMENT RELIEF ORDERS AND ASYLUMS.

To the various hospitals and asylums the Government issues orders authorising the holders to secure relief from the institutions. During 1910, 9,418 orders were granted, of which 4,218 were to the Government asylums for the Infirm and Destitute, 2,624 were to the Government Coast Hospital, and 1,670 were for outdoor treatment at different hospitals. The balance were distributed among other institutions; the orders refused numbered 1,373, the total applications being 10,791, as compared with 10,898 for 1909.

The estimated value of outdoor relief afforded by the various institutions during 1910 was £4,186. State aid rendered to them amounted to £168,495, their total revenue and expenditure being respectively £266,567 and £264,867. In addition to the institutions which afford both indoor and outdoor relief there exist numerous societies which are engaged in distributing relief in various forms. During 1910 these societies distributed outdoor relief to the value of £8,267, their total revenue and expenditure being £35,196 and £33,822 respectively, State aid amounting to £2,835.

The following statement shows the number of applicants for Government orders for relief during 1910 :—

Ages.	Number.	Ages.	Number.
Under 5 years ...	530	30—40 years ...	1,452
5—10 years ...	470	40—50 „ ...	1,703
10—15 „ ...	358	50—60 „ ...	1,685
15—20 „ ...	559	Over 60 „ ...	2,178
20—25 „ ...	924		
25—30 „ ...	932	Total ...	10,791

The majority of the applicants were native-born or from the United Kingdom, with a recorded occupation of general labour or domestic service.

The Government asylums number six, and the following figures show the number of persons in residence during each of the last five years :—

Year ended 30th June.	Number.	Year ended 30th June.	Number.
1907 ...	3,794	1910 ...	3,336
1908 ...	3,746	1911 ...	3,125
1909 ...	3,606		

The weekly cost per inmate averaged 7s. 5d. in 1911, as compared with 7s. 9d. in 1910.

DIVORCES.

A total of 6,887 petitions for divorce, 587 for judicial separation, and 71 for nullity of marriage, have been presented to the Supreme Court in the Divorce and Matrimonial Causes Jurisdiction from 1873 to the end of 1910. Of the petitions for divorce, 2,223 were presented *in forma pauperis*.

The following statement shows the divorces, judicial separations, and decrees of nullity of marriage granted in New South Wales since the year 1873 :—

Period.	Divorces.		Judicial Separation granted.	Nullity of Marriage.	
	Decrees nisi.	Decrees absolute.		Decrees nisi.	Decrees absolute.
1873-1877	55	33	...	...	...
1878-1882	85	70	...	...	...
1883-1887	141	120	8	2	2
1888-1892	305	224	31	5	5
1893-1897	1,403	1,303	55	7	7
1898-1902	1,185	1,098	89	12	12
1903-1907	1,021	886	67	14	10
1908	241	206	12	3	1
1909	318	284	14	3	4
1910	190	251	6	2	3
Total ...	4,944	4,480	282	48	44

The first Divorce Act in New South Wales was passed in 1873, and from the 1st July in that year down to the end of 1892 the number of divorce decrees made absolute was 447. In August, 1892, an amended Divorce Act came into force, and in 1893 the number of decrees was 247, rising in the following year to 288; but in 1908 the number decreased to 206. The number of divorces per 10,000 marriages in New South Wales was 347 during the two years 1893-94, 277 during the five years 1895-99, 206 during the five years 1900-04, and 149 during the five years 1905-9.

Reckoning as a divorce only those cases where the decree has been made absolute, the total number of decrees from 1873 to 1910 was 4,806, of which 4,480 were divorces, 44 cases of nullity of marriage, and 282 judicial separations.

The majority of petitions are lodged by the wife, the proportion being approximately 70 petitions made by the wife to 30 lodged by the husband.

The following statement shows the sexes of petitioners for divorce in the cases of decrees made absolute during the past ten years :—

	Husband.	Wife.		Husband.	Wife.
1901 ...	63	145	1906 ...	50	105
1902 ...	76	163	1907 ...	40	111
1903 ...	67	116	1908 ...	68	138
1904 ...	68	147	1909 ...	85	199
1905 ...	63	119	1910 ...	77	174

In regard to judicial separations over the same period, 23 were granted on petition of the husband, and 118 on petition of the wife.

The grounds of suits for divorce made during each year since 1901 were as follows :—

Ground of Suit.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
Adultery	61	79	64	70	58	57	62	67	85	68
,, coupled with bigamy, cruelty, and desertion	12	9	3	11	8	6	4	7	13	9
Cruelty and repeated assaults	3	1	...	1	2	...	1	1	...	3
,, ,, habitual drunkenness	10	8	5	11	8	9	6	8	7	4
Desertion	112	134	96	115	98	74	67	110	156	149
Habitual drunkenness and neglect to support	6	4	5	5	4	3	6	5	11	4
Habitual drunkenness and neglect of domestic duties	3	4	9	2	...	2	2	1	2	2
Imprisonment of husband for three years	1	...	1	...	2	1	1	2	3	2
Non-compliance with order for restitu- tion of conjugal rights ... ..	...	...	...	...	2	3	2	5	7	10
Total	208	239	183	215	182	155	151	206	284	251

As to the grounds of appeal for divorce, the majority of petitions granted were made on counts of desertion, a lesser proportion including habitual drunkenness as a causative factor in the conditions upon which the appeal was based. The following statement shows the proportions of petitions based on these grounds, viz., desertion and habitual drunkenness during the ten years 1901-1910 :—

Year.	Causes based on		Total Causes.	Year.	Causes based on		Total Causes.
	Desertion.	Drunkenness			Desertion.	Drunkenness	
1901	112	19	208	1906	74	14	155
1902	134	16	239	1907	67	14	151
1903	96	19	183	1908	110	14	206
1904	115	18	215	1909	156	20	284
1905	98	8	182	1910	149	10	251

It will thus be seen that on the average rather more than 60 per cent. of divorces granted are allowed on these two counts. As regards judicial separations, these factors are prominent, but are outweighed by the proportion of causes which are based upon mutual consent.

As regards the duration of marriages dissolved, the records for 1910 show an average of thirteen years, the families averaging 1.6 children.

FRIENDLY SOCIETIES.

Progress of Legislation.

The first Act of Parliament to regulate Friendly Societies, passed in 1843, conferred certain legal advantages on societies established for the purpose of raising funds for mutual relief of the members, but provision was not made to enforce correlation of contributions to benefits, nor to secure periodic financial statements from the societies, and no officer was specifically appointed to supervise the administration of the Act.

In 1873 a more comprehensive Act was passed, and a Registrar was appointed to certify as to the accordance of the rules of the societies with the law. To obtain the registration of a society under this Act it was essential that the table of contributions be certified by an actuary; but after registration, the society had power to vary the rates of subscription and the amount of benefits, so stultifying the requirement as to certification.

In 1881 a Royal Commission was appointed to investigate the working of the Act, and a series of valuations made of the positions of the societies disclosed a condition of insolvency in all cases. Until 1899 no attempt was made, however, to carry out recommendations made by the Commission; but under the Friendly Societies Act, 1899, the supervision of the State was imposed upon societies in the conduct of their business, and in the safeguarding of their funds, collection of data as to membership, sickness and mortality experience, investigation of accounts; and expert advice was made available in their financial concerns, with actuarial oversight by means of periodic valuations.

In the process of re-registration of the societies the vital question of adequacy of contributions was raised, and the necessity for actuarial certification of scales of payments was enforced; but the difficulty of impressing this necessity upon old members accustomed to paying a contribution far lower than was judged commensurate actuarially with the benefit accruing, was great, and was eventually adjusted by compromise, which permitted all societies subsisting at the commencement of the Act of 1899 to register, subject to provision being made for keeping the accounts of contributions and benefits of old members separate from those of future members; new members were to pay at actuarially certified rates, while the rates of old members were to be not less than those formerly payable, and the registration was to be effective until the next quinquennial investigation, when re-registration could be secured, (1) if such valuation showed that the society had improved its financial position in respect of persons who were members at the last preceding registration; or (2) if the rules of the society provided that the rates of contribution to be charged in respect of such old members were certifiable by an actuary.

In 1906, compulsory registration of all Friendly Societies was required, the only exception being as to dividing societies, which annually distribute all their funds amongst their members.

Benefits and Actuarial Valuations.

The benefits assured are fairly uniform in all societies, and consist usually of medical attendance and medicine for a member and his family, with sick pay for the member and funeral allowance for the member and his wife. The average sickness benefit is 21s. per week during the first six months,

10s. 6d. for the next six months' illness, and 5s. per week for rest of illness, this last provision being rendered possible by the Subventions to Friendly Societies Act, 1908, of which more detailed mention is made below. The funeral benefits range from £20 to £40 at death of the member, with a contingent benefit of £10 or £15 on death of the wife. A separate benefit for widows, usually £10, may be assured in some societies for a stated contribution.

The first quinquennial valuation of Friendly Societies required in compliance with the Act of 1899, was undertaken as at 31st December, 1904. Eighteen affiliated societies and thirteen single societies were valued.

At this valuation 96,422 members were valued for sickness benefit, and 97,511 for funeral benefits, with 51,155 subsidiary funeral benefits. With one exception, in which a 4 per cent. interest rate was adopted, the valuation was made on a 3 per cent. basis on the experience of the M.U.I.O.O.F. of England, 1866-70.

Taking into account only the large affiliated Orders, the results showed that eight of them possessed surpluses amounting in the total to £28,967, and in the remaining ten instances there were deficiencies representing an aggregate amount of £289,997. There was, consequently, a net deficiency of £261,030, in respect of total liabilities of £3,904,545. Of the single societies three showed small surpluses, amounting in the aggregate to £346, and thirteen had deficiencies amounting to £10,936. Dealing with the figures for all societies, there was a net deficiency of £271,620 on a total liability of £3,981,252, equal to 1s. 4d. per £1, or, in other words, a sum of only 18s. 8d. was available to meet each £1 of liability.

To strengthen the financial position of the societies, and to improve their status, the Registrar recommended to the societies close watchfulness of finances as to collection and allocation of contributions, and as to investments and the payment of benefits; adequate rates of contributions for every benefit quoted; and consolidation of resources under control of a central committee for each society; careful selection of new members as to soundness of health; the preparation of tables of benefits in accordance with the average earnings of members; and the payment of a special premium by members engaged in hazardous occupations. By these measures, efficient management of the finances would be secured, high sickness and mortality rates lessened, and imposition and malingering prevented.

In their observance of these recommendations, the societies endeavoured to improve the state of their finances, and the results disclosed by the second valuation, as at the 31st December, 1909, showed that the position of the societies as a whole is distinctly sound. The second quinquennial valuation was made on a 3½ per cent. rate on the basis of the experience of the Friendly Societies in this State during the nine years 1900-8. Sickness and Funeral benefits were valued for 116,186 members, funeral benefit only for 5,258, and sickness benefit only for 13,109 members. In addition, there were subsidiary risks on account of 54,391 persons, comprising members, their wives, and children.

The results showed that the eighteen affiliated societies had a surplus of £135,780 in the Funeral Fund, and a deficiency of £70,800 in the Sickness Fund, the net result being a surplus of £64,980 on the total liability of £4,122,197. The single societies showed a surplus of £1,411 over liabilities of £97,570. The assets of all the societies were, therefore, £66,391 in excess of the liabilities, £4,219,767, so that for every £1 of liability they held assets valued at £1 0s. 4d.

The results of the 1904 and 1909 valuations are compared in the following table, which shows the value of assets for £1 of liabilities at each date:—

Societies.				1904.		1909.	
				s.	d.	s.	d.
Affiliated	...	...	...	18	8	20	4
Single...	...	...	...	17	3	20	3
All Societies...				18	8	20	4

The deficiency of 1s. 4d. in the £ at the first valuation was converted to a surplus of 4d. in the £ during the quinquennial period. The Sickness Fund shows a deficiency of 6d. in the £1, and the Funeral Funds a surplus of 2s. 1d., the combined funds disclosing a surplus of 4d., as shown above.

Membership and Funds.

The following table shows the progress in the number of societies, branches, and members, during the six years ended 31st December, 1910:—

Year ended 31st December.	Branches.	Members.	Proportion per cent. of Population.
	No.	No.	
1905	1,195	101,463	6·8
1906	1,299	106,678	7·0
1907	1,333	116,985	7·5
1908	1,393	123,297	7·8
1909	1,492	133,129	8·3
1910	1,635	149,442	9·1

The membership of 149,442 at 31st December, 1910, representing 9 per cent. of the total population of the State, is the highest proportion yet attained in a steadily rising scale; the benefits of medical attendance and medicine accrue also to the member's family, so that approximately 40 per cent. of the population derive advantage from the societies in some form.

The receipts and expenditure of the societies for the six years ended 31st December, 1910, are set out in the following statement:—

Year.	Receipts.					Expenditure.					Excess of Receipts.
	Sick Fund.	Funeral Fund.	Medical and Manage- ment Fund.	Addi- tional Funds.	Total.	Sick Fund.	Funeral Fund.	Medical and Manage- ment Fund.	Addi- tional Funds.	Total.	
	£	£	£	£	£	£	£	£	£	£	£
1905	149,495	60,015	170,890	10,066	390,466	103,910	26,844	175,633	8,105	314,492	75,974
1906	144,702	60,726	180,240	10,359	396,027	93,093	26,005	172,833	7,269	299,200	96,827
1907	163,438	86,381	175,075	9,106	434,000	111,705	25,784	168,352	15,660	321,481	112,519
1908	153,199	74,546	184,195	23,384	435,324	111,260	46,245	179,915	8,989	346,409	88,915
1909	150,022	81,870	191,967	31,675	455,524	112,468	47,483	195,420	22,807	378,168	77,356
1910	156,783	80,616	206,837	19,762	463,998	130,550	29,905	203,500	15,727	379,682	84,316

The apparent retrogression shown by the figures for the years 1908 and 1909 is to be explained mainly by the introduction of reduced rates of contributions authorised in the majority of societies in consequence of the favourable position disclosed in the first quinquennial valuation, but also by the assistance rendered to the societies generally under the Subvention Act.

The total cases of sickness of adult males in 1910 were 25,319 at an aggregate cost of £121,134, or an average amount of sick pay of £4 15s. 8d. per sick member. The records for female and juvenile sickness are small relatively to those for male adults, and conclusions of practical value are not deducible from them. The following statement shows the extent to which each section of membership participated in sickness benefits:—

	Number Sick.	Period of Sickness.	Sick Pay.
		weeks.	£
Adult Males ...	25,319	155,702	121,134
„ Females ...	1,257	7,683	3,476
Juveniles ...	167	502	179
Total ..	26,743	163,887	124,789

Reserves.

The total funds of the Friendly Societies at the end of 1910 amounted to £1,419,695, disposed as follow:—

Mode of Disposal.	Sickness Fund.	Funeral Fund.	Medical and Management Fund.	Other Funds.	All Funds.
	£	£	£	£	£
Mortgage	497,695	426,091	13,768	28,474	966,028
Public Funds	14,806	13,457	400	63	28,726
Savings Banks	108,745	33,064	23,407	9,238	174,454
Other Banks	13,115	1,064	435	38	14,652
Buildings and Freehold Property	87,070	40,158	26,126	1,523	154,877
Other Investments	1,745	757	1,519	621	4,642
Uninvested	29,605	21,221	21,050	6,288	78,164
In use by other Funds	6,594	3,395	1,214	3,292	14,495
Total	759,375	539,207	87,919	49,537	1,436,038
Overdraft	1,827	188	12,871	1,457	16,343
Total Funds... ..	757,548	539,019	75,048	48,080	1,419,695

The following comparative table, shows the accumulated assets of all funds at the close of each of the last nine years:—

Friendly Societies Proper.—Balance of Funds.

Year.	Sickness Fund.	Funeral Fund.	Medical and Management Fund.	Other Funds.	All Funds.
	£	£	£	£	£
1902	438,794	239,996	67,055	38,622	784,467
1903	474,099	263,988	64,924	48,589	851,600
1904	504,363	296,411	61,251	22,669	884,694
1905	549,949	329,582	56,508	24,629	960,668
1906	602,314	365,003	64,170	27,337	1,058,824
1907	651,812	425,620	70,894	20,782	1,169,108
1908	693,751	453,921	75,174	35,177	1,258,023
1909	731,315	488,308	71,711	44,045	1,335,379
1910	757,548	539,019	75,048	48,080	1,419,695

The advancement recorded in the above figures is shown by the following percentage rates of growth of the funds during the year 1910, as compared with 1909 :—

Sickness Fund	Increase	3·6 per cent.
Funeral Fund	„	10·4 „
Medical and Management Fund	„	4·7 „
Other Funds	„	9·2 „
Total Funds	„	6·3 „

The effect of the subvention system is visible in the reduction of the rate of increase in the sickness fund from 6·4 per cent. in 1908 to 5·4 per cent. in 1909, and to 3·6 per cent. in 1910. There are two causes for this reduction—(a) aged members are no longer required to pay contributions; (b) subventions in respect of sickness cost in any year are not paid until the year following.

The fluctuations of the rate in the Funeral Funds during the last few years have been due to transfers; for instance, £19,491 was transferred from the funeral fund (U.A.O.D.) to the building fund in 1909, consequent upon the adoption of the levy system in connection with mortality payments.

THE FRIENDLY SOCIETIES EXPERIENCE OF SICKNESS AND INFIRMITY.

The returns of the Friendly Societies of New South Wales furnish valuable information relating to the sickness and mortality of the members, and a standard of purely local experience is provided as a basis of the quinquennial valuations of the societies by their experience, recorded, more or less satisfactorily, for the nine years 1900–08.

During this period the sickness of the male members aggregated 859,412 weeks, the annual rate per member being 1·30 weeks; the experience of the female members was too small to be of any practical value.

For valuation purposes 18 years was regarded as a satisfactory commencing age, but owing to insufficiency of data at the higher ages, the rates were not extended beyond age 65 as the upward limit. The following table shows the average annual weeks of sickness per member in New South Wales at every fifth year of age during the years 1900–08 in comparison with the experience of the Manchester Unity Friendly Society of England, 1866–70, and of the South Australian Friendly Societies, 1895–1904.

Age.	New South Wales Friendly Societies, 1900–1908.	Manchester Unity, England, 1866–1870.	South Australian Friendly Societies, 1895–1904.
Years.			
18	·8391	·5165	·740
23	·7614	·7758	·772
28	·7377	·8163	·814
33	·7511	·9659	·819
38	·8345	1·0850	·925
43	1·0198	1·3211	1·080
48	1·3057	1·7467	1·397
53	1·8308	2·3358	1·971
58	2·9118	3·3236	3·043
63	4·6233	5·1627	5·012

Except at the ages 18-20 years the New South Wales experience is considerably below that of England and of South Australia.

The male rates decrease down to age 29, and then increase regularly to the end of the observed period of life. The phenomenon of high rates at the early ages is not explained on the ground of paucity of data, as the same result was exhibited in the experience of individual societies whether their membership was large or small. The sickness rates of the Friendly Societies of other States of the Commonwealth disclose a similar feature; and it must be concluded that such high rates are peculiar to this class of experience, and probably induced by the liberal benefits formerly allowed, but which are now being reduced as a result of the experience disclosed.

The sickness experience of the male members of all ages during the last six years is shown below :—

Year.	Male Members exposed to risk of Sickness.	Sick Members.		Period of Sickness.	
		Number.	Proportion to total exposed to risk.	Total.	Per member exposed to risk.
			per cent.	weeks.	weeks.
1905	81,642	17,982	22.0	102,420	1.25
1906	84,053	18,156	21.6	102,633	1.22
1907	89,986	21,721	24.1	120,440	1.35
1908	95,050	21,150	22.2	124,084	1.30
1909	99,080	19,976	20.2	131,306	1.32
1910	110,813	25,319	22.8	155,702	1.41

MORTALITY.

The following figures show the mortality experience per 1,000 adult males of the principal societies over the valuation period 1905-1908 :—

Society.	Age Group.										All Ages.	Percentage of expected.
	Under 20.	21 to 25.	26 to 30.	31 to 35.	36 to 40.	41 to 45.	46 to 50.	51 to 55.	56 to 60.	61 to 65.	66 and over.	
A.O.F. (Sydney)	3.11	2.46	4.10	0.39	4.04	2.73	7.02	14.50	27.67	47.27	86.96	7.36 90
G.U.O.O.F. ..	3.30	3.11	2.58	3.33	4.13	5.22	7.14	10.62	22.01	30.43	52.73	6.34 83
H.A.C.B.S. ..	4.08	2.68	3.39	5.28	4.82	6.57	14.49	7.08	23.69	45.92	64.52	6.03 108
L.O.O.F... ..	1.64	2.92	1.73	2.39	4.63	7.01	9.71	15.49	24.12	40.86	50.80	6.07 93
M.U.	3.02	2.17	2.85	5.15	4.99	5.69	8.51	11.64	20.02	28.73	67.48	7.91 92
P.A.F.S.	1.80	2.78	1.96	2.76	4.45	5.27	6.44	14.13	12.31	25.34	59.36	6.90 78
S.D.T.	2.99	4.90	1.28	5.14	6.12	3.48	7.18	11.99	13.73	45.07	67.89	16.00 85
U.A.O.D.	2.25	2.39	3.14	3.87	3.91	10.36	10.74	14.95	22.19	39.92	79.01	7.66 105
All Societies..	2.80	2.63	2.80	3.91	4.52	6.14	8.66	12.39	20.25	31.98	66.07	7.27 91

The general death rate per 1,000 adult males, irrespective of age incidence, during each of the past six years has been as follows :—

	Death Rate per 1,000 Adult Males.		Death Rate per 1,000 Adult Males.
1905	7.4	1908	7.7
1906	7.1	1909	6.9
1907	6.6	1910	6.9

In conjunction with the low sickness experience of the members, there was also a low mortality rate. During the nine years 1900-8 the male adult experience comprised 791,856 exposures to risk for one year each, and there were 5,952 deaths, the rate being 7·52 per thousand. The following table shows the average duration of life as deduced from the experience of the Friendly Societies in this State in comparison with that of other experiences:—

Age.	N.S.W. Friendly Societies, 1900-8.	Manchester Unity Friendly Society, England, 1866-70.	South Australian Friendly Societies, 1895-1904.	Australian Mutual Provident Society, 1849-88.
18	48·68	42·95	47·89	48·79
23	44·37	39·15	43·84	44·00
28	40·02	35·47	39·71	40·36
33	35·70	31·82	35·69	36·21
38	31·48	28·19	31·65	32·18
43	27·34	24·69	27·65	28·25
48	23·30	21·27	23·75	24·46
53	19·43	17·93	19·98	20·77
58	15·92	14·77	16·48	17·14
63	12·76	11·87	13·30	13·70
68	9·87	9·34	10·36	10·75
73	7·43	7·20	7·75	8·15
78	5·49	5·53	5·38	5·57
83	3·97	4·20	3·73	3·89
88	2·81	3·20	2·72	2·84
93	1·95	2·46	1·46	1·53
98	1·39	1·91	...	...

HAZARDOUS OCCUPATIONS.

The only well-defined class of occupations carrying a heavy risk, the experience of which was deducible from the available records of the societies was that of the mining section. An experience of all persons engaged in the work of mining could not be secured, but an investigation was made of the branches of which the members were nearly all miners, and the experience obtained may be assumed to fairly represent this particular class.

The following table shows a comparison of the rates of sickness of the mining and non-mining branches as disclosed by the valuation:—

	Weeks of Sickness.	
	Total.	Annual Rate per Member.
Mining	154,251	1·613
Non-mining	705,161	1·249
All Members	859,412	1·301

The effect of the added sickness of the mining population was to raise the general rate by 4·2 per cent., the mining being 29·2 per cent. above the non-mining rate. It is unfortunate, in view of the results disclosed by this section of persons engaged in hazardous occupations, that other such dangerous occupation could not be treated, but the data were too scanty for exhaustive investigation.

The deductions made from the experience of mining localities have since been verified by an occupational experience made available through the more complete records of one Society, the Independent Order of Rechabites, Salford Unity, which permitted of an analysis of the experience during six years of persons actually engaged in the mining industry. Following are the results of this investigation :—

Central age of Group.	Standard Rate of Sickness of non-Miners per annum (all Societies).	Actual Rate of Sickness of Miners per annum.	Miner's Rates per cent. of non-Miners (100).
	weeks.	weeks.	
18	·839	1·410	168
23	·761	1·208	159
28	·738	·769	104
33	·751	1·908	254
38	·834	1·382	166
43	1·020	1·847	181
48	1·306	2·828	217
	6·249	11·352	182

In connection with this question of the extra sickness risk involved in hazardous occupations as denoted by the experience quoted above for miners, it may be of interest to record the principal recommendations made at the end of 1911 by the Miners' Phthisis Commission in Western Australia. These recommendations were as follows :—

(1) Compulsory medical examination and certification of miners before employment; (2) all miners then engaged to be examined three months after the passing of the proposed Act, and to be medically examined every six months; (3) employment of uncertificated miners to be an offence; (4) miners medically rejected for tuberculosis or intermediate fibrosis to be sent to a sanatorium at the State's expense; (5) a Miner's Claims Board to be created to deal with the employment of medically rejected men, the board to be financed by the State until the scheme of employment is perfected. Miners' Insurance Trust to be established, the men to contribute one-third of the premium on the basis of one-half per cent. of their wages up to £250 a year; (6) the mine-owners also to contribute one-third, and the State the remaining third, miners who are adequately insured in an ordinary insurance company or benefit society to be exempted from contribution; (7) contribution miners to receive medical attention and medicine free.

"The report recommends the reserving of special areas for settlement under the Miners' Claims Board, for miners who are obliged to leave mine work as a result of medical inspection.

"The commission holds that tuberculosis should be treated on different lines to pneumoniocosis, as defined by Dr. Cumpston's clinical standard for 'intermediate fibrosis.' The former is a danger to the entire community; the latter only involves increasing incapacity to earn a living.

"For the prevention of disease, boards of experiment should be created on the Kalgoorlie and Murchison fields, to test inventions for improving ventilation, disposing of dust and explosive gases, and the prevention of accidents in mines."

STATE SUBVENTION OF FRIENDLY SOCIETIES.

To enlarge the sphere of usefulness of the Friendly Societies the Subvention to Friendly Societies Act, 1908, assures to the societies which elect to be bound by its provisions, the following advantages:—

1. Sick pay—

(a) One half the total cost in each year in respect of all sickness after twelve months from the commencement of such sickness, for male members less than 65, and for females less than 60, years of age—provided that the maximum cost to the State shall not exceed 5s. per week for each case of prolonged sickness.

(b) The whole cost of sick pay in respect of male members aged 65 years and over, and of female members aged 60 years and over—subject to the same proviso as above.

2. The contributions payable on account of all male members 65 years and over, and of female members 60 years and over, for medicine and medical attendance, provided that such contributions shall not be more than those payable by members of the same society under the ages stated.

3. The contributions payable under the rules of a society in respect of the aged members above mentioned, to assure payment of funeral allowance at their death.

During 1909, the first year in which the Act was operative, thirteen affiliated and nine single societies accepted its provisions. The membership in these societies at the end of 1909 was 110,003 and 1,389 respectively, and they represented 96 per cent. of the strength of all the societies. The amount of subvention which accrued to the societies during the year was £6,071. Only three societies were entitled to claims on account of the whole year, the claims of the remainder covering periods varying from two to ten months. For 1910 the claims paid on account of the applicant societies were as follows:—

Society.	Continuous Sickness.			Sickness.			Contributions (Medical and Funeral).		Total.
	Members under 65.			Members over 65.			Members.	Amount.	
	Members.	Period of Sickness.	Amount.	Members.	Period of Sickness.	Amount.			
A.H.C.G....	4	wks. dys. 64 4	£ s. d. 13 8 4	54	wks. dys. 874 1	£ s. d. 205 4 0	184	£ s. d. 292 13 6	£ s. d. 511 5 10
A.O.F. (Sydney).. " (New England)	37 1	1,602 0	200 5 0	64	2,106 2	526 12 6	212	264 12 6	991 10 0
G.U.O.F.G.	20	71 3	3 2 0	12	255 1	37 13 4	22	27 12 2	171 7 0
G.U.O.O.F.	58	2,889 5	352 12 1	189	4,027 5	1,011 8 0	404	702 6 2	2,066 6 3
H.A.C.B.S.	15	804 1	64 5 11	21	496 0	99 3 4	56	75 3 7	238 12 10
I.O.R.	11	404 5	96 16 8	4	91 5	22 10 2	26	32 16 11	152 12 9
L.P.B.S.	2	18 1	2 5 5	21	406 0	101 10 0	63	57 8 0	161 3 5
M.U.I.O.O.F.	163	6,421 3	888 18 0	393	11,017 5	2,775 5 10	1,205	1,842 14 6	5,506 18 4
N.I.O.F.	4	71 1	8 7 11	54	1,128 5	281 4 7	206	349 4 9	8 7 11
O.R.F.	11	509 1	66 15 9	143	3,015 5	750 0 10	478	637 4 5	1,630 6 8
P.A.F.S.	51	1,873 1	234 1 5	142	2,812 0	666 12 1	411	623 11 9	1,327 9 3
S.D.T.	10	302 0	37 5 5	68	2,045 2	501 8 0	*127	134 13 1	975 19 0
U.A.O.D.	66	2,487 4	339 17 11	23	348 3	87 2 6	214	234 12 0	349 15 9
Single Societies ..	5	224 3	23 1 3						
Total..	458	18,442 4	2,442 5 2	1,188	28,625 4	7,075 4 2	3,608	5,274 13 4	14,792 2

* Medical attendance and medicine only.

The average period of aged members' sickness, disclosed above, was 24·1 weeks; the experience for the years 1905 to 1908 showed that the average sickness experience of male members aged 66 years and over was only 7·91 weeks per annum; it will, therefore, be seen how wide has been the extension of the benefits consequent upon the introduction of the subvention scheme. The comparison is not entirely equitable, as the age grouping is not precisely similar, but it is sufficiently close for general purposes.

The claimants, including widows, on account of contributions numbered 3,608; the claims for funeral contributions amounted to £1,872 ls., and for medical attendance and medicine to £3,403 8s. 1d.

The Act has been of great benefit to all the societies, but more particularly to those in which the proportion of aged members is large.

The position of the societies in this respect is shown in the following table, which has been compiled from figures published in the last valuation report :—

Society.	Membership at 31st December, 1909. (Adults).			Males 66 and over.		Females 61 and over.	
	Males.	Females.	Total.	Number.	Per cent. of all Males.	Number.	Per cent. of all Females.
A.H.C.G. ...	2,993	331	3,324	141	4·71	...	...
A.O.F. (Sydney) ...	4,856	...	4,856	115	2·37	...	...
G.U.O.F.G. ...	2,980	...	2,980	21	·71	...	...
G.U.O.O.F. ...	20,277	1,162	21,439	421	2·08	12	1·03
H.A.C.B.S. ...	6,302	1,134	7,436	46	·73	4	·35
I.O.O.F. ...	12,754	1,436	14,190	128	1·00	...	...
I.O.R. ...	4,359	116	4,475	10	·02	...	...
L.P.B.S. ...	341	611	952	35	10·26	17	2·78
M.U.I.O.O.F. ...	29,313	...	29,313	902	3·08	...	...
O.R.F. ...	2,648	...	2,648	119	4·49	...	...
P.A.F.S. ...	9,726	42	9,768	283	2·91	...	...
S.D.T. ...	1,726	779	2,505	210	12·17	110	14·12
U.A.O.D. ...	12,081	716	12,797	127	1·05	2	·28
Other Societies ...	4,716	607	5,323	...	...	...	...
Total, Affiliated Societies ...	115,072	6,934	122,006	2,558	2·22	145	2·09
Single Societies ...	4,708	280	4,988	272	5·78	12	4·28
Total, all Societies	119,780	7,214	126,994	2,830	2·36	157	2·35

SECESSIONS.

Naturally it is to be expected that the extension of benefits made possible by this system of subvention will have a marked effect in decreasing the rate of secessions of all ages, but particularly in the higher age groups, where the majority of the lapses have probably been caused through inability to pay a heavy contribution at an age when their financial resources are least elastic.

The following table shows the secession rates prevailing amongst male adult members of Friendly Societies in this State during the period 1900-08, and, in comparison, the rates found to exist in the tabulated experience of the three other authorities. The quotations are given in age-groups, to enable the variations throughout life to be traced :—

Comparison of the Secession Rates of the New South Wales, 1900-1908, Experience with those of other Experiences.

Central Age.	Rate of Secessions per cent. per annum.			
	Manchester Unity, England, 1866-1870.	South Australia, 1895-1904.	Victoria, 1881-1890.	New South Wales, 1900-1908.
18	4.36	9.1	6.10	10.97
23	5.29	8.8	9.52	13.26
28	4.38	6.8	8.26	11.03
33	3.09	4.6	6.04	7.86
38	2.19	3.1	3.72	5.55
43	1.42	1.8	2.20	3.44
48	.87	1.3	1.69	2.01
53	.61	1.0	1.23	1.25
58	.48	.7	1.01	1.11
63	.38	.5	.76	.76
68	.26	.4	.31	.67

The movements under the headings of initiation and secession in New South Wales during 1910 were as follows :—

Members.	Initiations.		Secessions.	
	Number.	Rate.	Number.	Rate.
		Per cent.		Per cent.
Adult Males ...	22,901	19.1	8,640	7.2
„ Females ...	3,172	42.9	1,212	16.4
Juveniles ...	3,224	54.4	1,989	33.6
Total ...	29,297	22.0	11,841	8.9

The lapse rate shown above is but little below the lapse rates which prevailed during the previous five years, and the highest lapse rate and the heaviest sickness rate proportionately both occur in the youngest age-groups, so leaving the societies a very small margin of profit between contributions and benefits in these groups.

STATE PENSION SYSTEMS.

No general pension system, other than the old-age and invalidity pensions noted subsequently, is in operation in New South Wales; but the Government of the State subsidises various superannuation funds for sections of the public services. The following statement shows the number of pensioners and the amount of pension allowance made :—

Heading.	Year ended 30th June.	Pensioners.	Aggregate Pension.	Contribution Rate.
		No.	£	Per cent.
Public Service Superannuation Act	*1910	954	125,431	4
Superannuated Officers Constitution Act, 1902	1911	7	2,927	4
Superannuation Act (Repeal Act), 1873	1911	1	116	4
Commonwealth Officers—proportion of pensions of transferred officers	*1910	78	10,850	4
Police Superannuation and Reward Fund	1911	313	48,094	4
Government Railway Superannuation Account	1911	188	12,874	1½
Stipends to Clergy	1911	4	550	...
Parkes Family Grant	1911	2	180†	...
Annual Appropriations	1911	13	1,352	...
Supreme Court Judges	1911	3	5,460	...

*Year ended 31st December.

†House rent £75, additional.

The Railway Service Superannuation Board came into existence in October, 1910, as the result of the Railway Service Superannuation Act, 1910. At 30th September, 1911, the end of the first year, there were 19,733 contributors on the basis of 1½ per cent. of salary. At the same date there were 266 pensioners on the list, viz., 218 over 60 years of age, drawing allowances representing in the aggregate £15,208 per annum, and 48 under 60 years of age drawing at the rate of £2,473 per annum. The average rate of pension payment was £66 9s. 5d. per annum. During the year 18 pensioners died, viz., 10 over, and 8 under, 60 years of age; and for the year the receipts and disbursements of the fund were as follows :—

	£	s.	d.
Receipts from Contributions	39,052	2	5
Disbursements—Pensions, Gratuities, Refunds, &c. ...	9,397	4	6
Balance—Reserve	£29,654	17	11

Included in the disbursements is an amount of £2,524 14s. 5d. for life insurance premiums on policies transferred by officers to the Board, this amount being recoverable with interest at 3½ per cent. on maturity of the policies.

INVALIDITY AND ACCIDENTS PENSIONS.

The Invalidity and Accidents Pensions Act, passed by the State Parliament in 1907, allowed pensions up to £26 a year to persons over 16 years of age permanently incapacitated for any work; the amount of pension diminished in proportion to the income of the applicant, or to the contributions of relatives. It was essential that applicants should have resided for five years, and have become incapacitated, in the State, but the pensions were not payable to inmates of charitable institutions, nor to persons already in receipt of old-age pensions. The Act was administered in conjunction with the Old-age Pensions Act, 1901, of the State until the Commonwealth Invalid and Old-age Pensions Act, 1908–1909, commenced to operate in July, 1909, when the payment of old-age pensions became a function of the Commonwealth.

The payment of invalidity pensions was undertaken by the Commonwealth as from the 15th December, 1910, till which date the State system was maintained; and the operations recorded during the currency of the Invalidity and Accidents Pensions Act, 1907, were as follow :—

Period ended 30th June.	Certificates Issued.	Pensions Current.	Amount Paid.
	No.	No.	£
1908	1,906	1,765	12,527
1909	4,065	3,732	73,387
1910	5,165	4,252	101,192

It is worthy of note that up to the date of commencement of the Commonwealth Invalid Pension system, New South Wales was practically the only State in which such a pension scheme was operative; in Victoria, the only other State from which claims were transferred to the Commonwealth, the system had only just been initiated, and the claims taken over by the Commonwealth numbered only 111. The pensions taken over from New South Wales at the same date numbered 3,498; up to 30th June, 1911, the claims received on account of New South Wales numbered 1,307, of which 565 were granted, and 408 rejected; during the period December, 1910, to June, 1911, 219 pensions lapsed, viz., 135 by death, and 84 by cancellation, leaving 334 awaiting determination, and 4,063 then payable.

The average fortnightly rate of payment of invalid pensions for all Australia as at 30th June, 1911, was 19s. 6d., which exactly coincides with the New South Wales rate, being 6d. per fortnight below the maximum pension rate payable, and representing an aggregate payment rate of £97,396 per annum. The highest average (19s. 8d.) was attained in Queensland, the lowest (19s. 2d.) in West Australia.

OLD-AGE PENSIONS.

The old-age pension scheme sanctioned by the Old-age Pensions Act, 1900, passed by the Parliament of New South Wales, commenced to operate on the 1st August, 1901, and virtually expired on 1st July, 1909, when that portion of the Commonwealth Invalid and Old-age Pensions Act, 1908–1909, came into operation, which relates to the payment of old-age pensions to men. The portion of that Act authorising payment of pensions to women of attained age 60 commenced to operate on 15th December, 1910.

The following statement shows the number of pensioners on the old-age pension list of New South Wales on the 1st August of each year from the establishment of the system, the monthly rate of pension payment, the aggregate amount voted in each financial year, and the cost per head of mean population :—

Year.	Number of Pensioners.	Monthly Pension Rate.	Annual Appropriation.	Cost per Head of Population.
		£	£	s. d.
1901	13,957	28,037	436,183	6 4
1902	22,182	44,318	524,967	7 7
1903	20,905	41,795	508,133	7 2
1904	20,438	40,617	496,300	6 11
1905	20,483	40,493	489,095	6 8
1906	20,817	40,924	494,227	6 7
1907	20,963	41,684	503,030	6 7
1908	21,345	42,679	526,835	6 9
1909	21,979	42,713	594,440	7 6

On the introduction of the Commonwealth administration, 21,292 State pensions were converted to Commonwealth pensions, and the following statement shows the applications received during each year, the number of pensions current on 30th June in each year, and the proportion of pensioners to total population for the State of New South Wales :—

Year.	New Applications.	Lapses.			Pensions Current, 30th June.		
		Death.	Cancellation.	Total.	Male.	Female.	Total.
1910	7,588	1,680	126	1,806	13,169	12,046	25,215
1911	6,174	2,100	402	2,502	14,572	13,588	28,160

The conditions governing the payment of old-age pensions under the Commonwealth have varied but slightly from the conditions prevailing under the State Act; the age qualification remains at 65 years for men, with a reduction to 60 years in case of men permanently incapacitated, or of women; the length of residence qualification is reduced from twenty-five years in New South Wales to twenty years in Australia, but absences amounting in the aggregate to one-tenth of the total period of residence are permitted. Naturalised persons are eligible for pensions three years after naturalisation, but aliens and aboriginal natives are disqualified.

The maximum pension payable is £26 per annum, with proportionate reduction in respect of any income or property of the claimant, so that the pensioner's income with the pension shall not exceed £52 per annum; but in computing income any benefits accruing from friendly societies are not to be reckoned as income.

The following statement shows for each State of the Commonwealth the number of pensioners on the 30th June, 1911, and the average fortnightly rate of pension payment :—

State.	Pensions current on 30th June, 1911.	Average Fortnightly Rate, as at 30th June, 1911.
	No.	s. d.
New South Wales	28,160	19 1
Victoria	23,722	19 3
Queensland	9,894	19 0
South Australia	6,885	18 1
Western Australia	2,976	18 10
Tasmania	3,865	18 7
Total	75,502	19 0

Prior to the introduction of the Commonwealth system, old-age pensions had been payable only in three States—New South Wales, Victoria, and Queensland.

For the Commonwealth, the total expenditure on old-age and invalid pensions during the financial year ended 30th June, 1911, amounted to £1,868,648; and the administration charges being £39,244, the total cost to the community was £1,907,892.

HOUSING.

In regard to population it has been shown that the density of settlement in the various Sydney and suburban areas varies considerably, and it is regrettable that complete records derived from the census figures for 1911 are not yet available to show the conditions under which the population of the State is housed. The extent of building operations, as shown by the records of past years, indicates an increase of dwelling-houses in New South Wales, but the major portion of that increase has been in suburban dwellings. The following statement shows the number of dwellings, and the acreage of the various divisions:—

Municipalities.	Number of Dwellings.			Acreage.
	1907.	1908.	1909.	
Sydney	22,207	21,445	23,035	3,327
Suburbs	95,748	99,210	100,825	91,932
Total	117,955	120,655	123,860	95,259
Newcastle	2,337	2,381	2,434	1,060
Suburbs	9,461	9,494	9,442	17,919
Total	11,798	11,875	11,876	18,979
Country Municipalities	71,713	72,275	73,465	1,803,842
Total	201,466	204,805	209,201	1,918,080

Shires—Year 1909—99,945 dwellings. Area, 182,111 sq. miles.

Within the City of Sydney in 1909, the dwellings averaged 6.92 per acre, as compared with 1.1 per acre in the suburbs.

Within the city, particularly, improvements and resumptions have been continuous; during 1909, 1910, and 1911 many of the old buildings were destroyed. In the rebuilding on the areas thus made available, modern requirements have been kept in view; but apart from them there has been a distinct, though gradual, development of an architectural style adapted to local conditions, and typifying Australian designs based on the native flora. In the suburbs the cottage plan of dwelling-house is favoured, quite 85 per cent. of new buildings being in this style. Details are given in relation to Local Government of the extent of resumptions, but reference is made here because in the rebuilding of the city many dwellers in overcrowded and frequently insanitary areas were driven to seek homes in outlying districts, or else to congregate, several families in one house. And naturally this has given an impetus to the upward tendency of rental rates, induced by increasing cost of building. During the past four years, new buildings have been erected in the city and suburbs at a rate averaging nearly 5,000 per annum, viz. :—

Year.	New Buildings.			Net increase of Population, City and Suburbs.
	City.	Suburbs.	Total.	
1907	211	4,042	4,253	20,350
1908	233	4,150	4,383	14,920
1909	356	5,736	6,092	13,800
1910	326	4,910	5,236	15,200

In the earlier months of 1910 the output of bricks from various yards was somewhat curtailed on account of a general strike in the coal-mining industry, and during the year the high cost of building materials generally, and dearth of labour in the building trades, combined to restrict operations somewhat below the level of 1909.

It is noticeable that the building rate, as compared with the net increase of population, has been irregular, viz. :—

	New Buildings per 1,000 of Population Increase.						
1907	209
1908	294
1909	441
1910	344

SHARING HOUSES.

As a solution of the difficulty of finding house accommodation, and to curtail the expense of rent and costs of transit to and from the place of work, the system of house sharing has grown in favour side by side with a phenomenal increase in the number of boarding-houses and their tenants.

It is estimated that rather more than 50 per cent. of the population live in rented houses. The position as at 1901, the latest census date available, is shown in the following statement as to the various kinds of habitations, the number of occupants, and the proportion of each to the total :—

Dwellings.	Number.	Occupants.	Proportion per cent.		Occupants per Dwelling.
			Dwellings.	Occupants.	
Inhabited—					
Private dwellings ...	237,448	1,221,571	88·35	90·70	5·14
Boarding-houses, hotels, and other households	7,506	84,544	2·9	6·28	11·26
Institutions ...	452	18,978	·17	1·41	41·99
Tents and camps ...	7,096	18,227	2·64	1·35	2·57
Total inhabited	252,502	1,343,320	93·95	99·74	5·32
Uninhabited ...	14,831	.....	5·52	.....	.....
Under construction ...	1,438	.....	·53	.....	.....
Migratory population ...	.....	3,500	.....	·26	.....
Total ...	268,771	1,346,820	100·00	100·00	.....

The majority of houses average four, five, or six rooms, the average number of occupants per room being 1·2.

RENTAL VALUES.

The rents paid for dwellings form a large deduction from the earnings of the industrial class in any community. In Germany for 1908 the expenditure for rent or maintenance of dwellings was estimated to absorb 17·96 per cent. of the total family expenditure, the cost of food, drinks, &c., approximating to 50 per cent. of the total. In New South Wales no authentic figures are available, but a sound estimate would place the cost of rent or house maintenance at an average of 20 to 25 per cent. of total expenditure, though necessarily the proportion decreases as the income increases, and *vice versa*. In the suburbs the rents vary in accordance with the class of people which constitutes the population; in more recently developed localities dwellings are rarely vacant for long, and rents up to £1 per week, which seems to be the limit set by an average worker's income, are readily obtainable.

The progress which has marked the operations of building societies during recent years, particularly those which favour the ballot and sale system of advances, indicates that, to a large extent, the industrial classes are endeavouring to become freeholders.

Comparison of rental rates may be made with those prevailing in New Zealand, where statistics have been collected since 1906. In April, 1911, the average weekly rental for five-roomed dwellings ranged from 12s. 9d. to 14s. 2d. per week in Auckland, from 15s. 7d. to 18s. 8d. per week in Wellington, and averaged 13s. per week in Christchurch and Dunedin.

In the matter of high rents, and the difficulty of securing adequate accommodation, a Select Committee of the Legislative Assembly of New South Wales was appointed in 1911 to investigate the question of the alleged recent increase in house rents, and the advisability of introducing a Fair Rents Bill to restrict rentals within a definite range.

Beyond this preliminary movement for the restriction of rents, the Government has arranged for the diversion from private brickyards of all supplies for Government works by establishing State brickworks and quarries to provide the material required in such Government works. Further, a Housing Bill has been introduced, which will permit of the erection by the Government of workers' dwellings, and the initiation of a definite system of town planning. In this connection it may be of interest to quote the operation of Workers' Dwellings Acts in Queensland, the adjoining State, and in New Zealand, where earlier Acts were amended in 1910.

WORKERS' DWELLINGS IN QUEENSLAND.

During 1909 a Workers' Dwellings Act was passed, and in the first eighteen months' operations of the Act up to 30th June, 1911, 465 applications were received for advances amounting in the aggregate to £110,640. Of these applications, 427 had been granted for amounts aggregating £101,167, and averaging £237 per application granted; 30 applications were under consideration for £6,691. Advances actually made out of the amount granted totalled £60,207, including £53,584 on account of 233 completed dwellings. Generally, applicants preferred dwellings built to suit their own requirements rather than to stock designs, and the average cost was between £200 and £300. The following statement shows the contract prices of dwellings erected or in course of erection at 30th June, 1911 :—

No. of Buildings.			No. of Buildings.		
Under £100	...	1	£300-£400	...	87
£100-£200	...	49	£400-£500	...	6
£200-£300	...	136	£600-£700	...	1
					280

WORKERS' DWELLINGS IN NEW ZEALAND.

In New Zealand a Workers' Dwellings Act was passed in 1910, which rendered the benefits of the Act available to workers in all parts of the Dominion, but at present operations are restricted to districts in which there are at least six applicants. Fifteen different designs are in use, but they are subject to alteration to suit the desires of applicants. For the erection of dwellings, land has been set apart in the following districts :—

Auckland	...	63 sections	...	59 miles from city centre.
Wellington	...	152 "	...	One hours' journey from city.
Christchurch	...	20 "	...	Close to city.
Dunedin	...	33 "	...	
Napier	...	18 "	...	1½ miles from city.
Palmerston North	...	34 acres.	...	

Control of the dwellings is vested in the Labour Department. They are disposed of by rent-purchase, lease, or tenancy, preference being given to purchase applications, the purchase being effected by a deposit of £10, and payments of 5 per cent. interest and 2 per cent. sinking fund, securing repayment in twenty-five and a half years. Combined with the purchase system is an arrangement with the Government Life Insurance Department by which a purchaser's life may be insured under a special scale, practically for the amount which would be due on the dwelling in the event of death, any balance being payable to the credit of the insured deceased's estate. Altogether, 126 houses have been erected and rented in the various districts, the rents ranging from 9s. 4d. to 13s. 10d. per week for dwellings of four, five, and six rooms, and including rates and insurance.

HOUSING ACCORDING TO SPANISH LAW.

The latest innovation in connection with housing reform is contained in a Spanish Law enacted in June, 1911, under which the Spanish Government is empowered to sanction the formation in any municipality of a committee under control of the Spanish Labour Department, and vested with authority to advise on and to encourage the erection of cheap and sanitary dwellings for sale or letting to persons with small incomes. Also, the committee will promote the formation of credit societies, facilitate the granting of loans, and even make advances for building purposes, investigate the sanitary condition of cheap dwellings, and generally supervise building operations, condemning buildings deemed dangerous to public health, or demanding improvements. Each local committee will consist of nine members appointed for four years; three of these members are nominated by the Governor of the province on the advice of the local council, one of these being connected with the building trade, one a member of the local council, and the third a doctor. Of the remaining six members, two are elected by a section of the ratepayers, two by workmen's associations, and two are appointed by the Governor. House sites may be provided freely by provincial and municipal authorities out of lands in the environs of towns or accessible to railways, but land liable to improve in value within ten years to such an extent as to eliminate the land and buildings from the category of cheap dwellings is restricted from free use. The annual grant for the encouragement of this housing system is £20,000, of which one-half is to be devoted to paying interest at a maximum rate of 5 per cent. on advances to co-operative societies, the remaining half being used in subvention to the maximum of one-quarter of the annual outlay of individuals or societies constructing cheap dwellings, or in guaranteeing interest (maximum 5 per cent.) on loans raised by the co-operative societies for the purpose.

RELIGIONS OF THE PEOPLE.

Churches in New South Wales.

New South Wales being originally a Crown Colony the church establishment as existing in England was introduced. Subsequently, there was accorded to the clergy of each of the principal denominations support from the Crown in the form of subventions, which were continued under a statute passed in the New South Wales Parliament (Act 7, Wm. IV, No. 3), after the initiation of responsible government, as an annual payment of £30,000 divisible between the Church of England, Roman Catholic, Presbyterian, and Wesleyan denominations. In 1862 these subventions were restricted to the clergy then actually in receipt of State aid, and in the

following year (1863) the subventions paid by the State amounted to £32,372, distributed thus :—

Church of England...	£17,967	Presbyterian	£2,873
Roman Catholic ...	8,748	Wesleyan Methodist...	2,784

At the end of 1910 the number of recipients of these subventions was reduced to four, the allowance made to these clergy during 1910 amounting to £550.

Church Constitution and Government.

The Church of England was represented in the settlement of New South Wales by a chaplain appointed and paid by the Crown, and episcopal oversight of the settlement vested, under an Order in Council of Charles I, in the Bishop of London.

In 1814 the territories under the Government of the East India Company, *i.e.*, all the countries and places situate beyond the Cape of Good Hope and the Straits of Magellan, being not then (1600) occupied by any European power, were erected into the Bishopric of Calcutta. By Letters Patent under the Great Seal, dated 2nd October, 1824, there was constituted an archdeaconry in and over the British Territories within the Colony of New South Wales (*i.e.*, Australia and New Zealand), subject and subordinate to the jurisdiction, spiritual and ecclesiastical, of the Bishop of Calcutta.

In 1834 the Colonies of New South Wales and Van Diemen's Land were severed from the Diocese of Calcutta, and in 1836 all the territories and lands comprised within or dependent on the Colonies of New South Wales (still including New Zealand), Van Diemen's Land, and West Australia were erected into the Bishopric of Australia. The important subdivisions subsequently made of this Bishopric date as follows :—

New Zealand erected into a suffragan see in 1842. Van Diemen's Land erected into a suffragan see of Tasmania in 1842. Sydney, Newcastle, Adelaide, and Melbourne Dioceses were erected in 1847; but further variations and subdivisions have resulted in the formation of twenty-one dioceses of the Church of England in Australia in 1910, of which six are in the province of New South Wales under a Metropolitan, the Archbishop of Sydney, and five bishops, whose sees are at Newcastle, Goulburn, Bathurst, Grafton and Armidale, and Riverina; the clergy attached numbered 471, of whom the majority were in the Sydney Diocese, as the following statement shows :—

Diocese.	Clergy attached.	Diocese.	Clergy attached.
Sydney	227	Newcastle	53
Bathurst	56	Riverina	20
Goulburn	46		
Grafton and Armidale ...	69	Total	471

By an Act passed in 1881, provision was made for the creation of corporate bodies of Trustees, in which property belonging to the Church of England may be vested, and trusts for various dioceses have been formed under the Act. They are entitled to hold, on behalf of the Church, all real and personal property which may be assigned to them by grant, will, or otherwise. In each diocese a Synod, consisting of clerical and lay representatives from each district, presided over by the Bishop, meets annually to make ordinances for the government of the Church. Each diocesan synod elects from its members representatives to sit at the Provincial Synod of New South Wales, which meets every three years, and to the General Synod of Australia, which meets every five years under the presidency of the Archbishop of Sydney.

The Roman Catholic Church is under the direction of an Archbishop. The Archdiocese of Sydney originally included the whole Australian continent and its adjacent islands, and was erected in 1834 as the Vicariate

Apostolic of New Holland. At intervals, subsequently, separate arch-dioceses were erected as follows:—Melbourne, Hobart, Adelaide, Brisbane, Wellington, with fifteen Bishopsrics, an Administration Apostolic in the Northern Territory, a Vicariate Apostolic at Cooktown (Q.), and an Abbey at New Norcia. The present Archdiocese of Sydney extends from Red Head on the north to Cape Howe on the south, and from the sea west to the Dividing Range. Under the Archbishop are the Suffragan Bishops of Maitland, Goulburn, Bathurst, Armidale, Wilcannia, and Lismore, the whole State forming an ecclesiastical province.

The following statement shows the establishment of the Roman Catholic Church in New South Wales in 1910:—

Diocese.	Priests.	Religious Brothers.	Nuns.
Sydney	199	220	1,276
Bathurst	36	7	242
Goulburn	58	8	273
Lismore	22	.....	91
Maitland	42	13	241
Wilcannia	17	...	149
Armidale... ..	25	6	157
Total	399	254	2,429

The various branches of the Presbyterian Church in the State are classified into fourteen Presbyteries, consisting of a number of separate charges, to each of which a Minister is appointed. The management of the affairs of the Church is controlled by a General Assembly, which sits annually, and consists of Ministers and Elders from the charges within the different Presbyteries. It is presided over by a Moderator, who is elected by the Presbyteries. By Act of Parliament, the Assembly has power to grant permission to trustees to mortgage Church property, and trustees are authorised to hold property for the Church generally. In July, 1901, a scheme of federal union was adopted by representatives from the various States, and the United Church is called the Presbyterian Church of Australia.

On the 1st January, 1902, the Wesleyan Methodist Church, the Primitive Methodist Church, and the United Methodist Free Churches in New South Wales entered into organic union, with a common name, common funds, common laws, and equal rights. The United Church is now known as "The Methodist Church of Australasia."

The Congregational Union of New South Wales was incorporated in 1882 by an Act which gives it legal status, and empowers it to hold land and other property. The Union allows every separate church to maintain perfect independence in the administration of its local affairs.

The Baptist Union of New South Wales holds annual sessions, with half-yearly assemblies. For several sessions a draft constitution has been under the consideration of the Union, which, amongst other matters, provides that all properties which now belong or may hereafter accrue to the Union shall be held under a Model Trust Deed, by trustees to be duly appointed.

The Salvation Army was established in Australia in 1882. Melbourne was made the chief centre for Australasia under the command of a Commissioner, and Sydney was constituted the headquarters for New South Wales, with a separate chief officer, who is termed Colonel-in-command, all officers and members bearing military titles and designations. There are also treasurers and secretaries to corps. Persons who are in sympathy with the Salvation Army, but who have not subscribed to the "Articles of War"—

which combine a confession of faith and a pledge against the use of intoxicating liquors and baneful drugs—form an Auxiliary League and contribute to the funds of the Army.

In addition to those above enumerated, there are other distinct religious bodies, for the most part of Protestant denomination, with ministers licensed by the State to celebrate marriages.

Religious Census, 1911.

The following statement shows for New South Wales the strength of each denomination, as disclosed by the Census of 2nd April, 1911:—

Religion.	Males.	Females.	Total.
Christian—			
Church of England	380,324	353,676	734,000
Methodist	75,512	75,762	151,274
Presbyterian	96,354	86,557	182,911
Congregational	10,888	11,767	22,655
Baptist	9,891	10,788	20,679
Church of Christ	2,865	3,547	6,412
Salvation Army	3,475	3,938	7,413
Lutheran	4,824	2,263	7,087
Seventh Day Adventist	806	1,193	1,999
Unitarian	512	332	844
Protestant (undefined)	21,309	15,595	36,904
Roman Catholic	190,122	185,269	375,391
Greek Catholic	885	198	1,083
Catholic (undefined)	18,214	18,408	36,622
Others	4,503	4,552	9,055
Total	820,484	773,845	1,594,329
Non-Christian—			
Hebrew	4,062	3,598	7,660
Mohammedan	776	43	819
Buddhist	437	11	448
Confucian	1,198	6	1,204
Pagan	254	.....	254
Others	2,238	150	2,388
Total	8,965	3,808	12,773
Indefinite—			
No Denomination	328	235	563
Freethinker	873	164	1,037
Agnostic	845	131	976
Others	1,022	613	1,635
Total	3,068	1,143	4,211
No Religion—			
Atheist	184	20	204
No Religion	2,228	446	2,674
Others	58	15	74
Total	2,471	481	2,952
Object to state	14,989	6,997	21,986
Unspecified	7,721	2,762	10,483
Grand Total...	857,698	789,036	1,646,734

The above figures are exclusive of 992 males, 722 females, total 1,714 persons, within the Federal capital territory, also 2,012 full-blooded Australian aboriginals living in the State, and 10 within the Federal capital territory.

An interesting comparison of the number of persons belonging to the principal religions at the date of each Census from 1891-1911 is afforded in the subjoined table. In this table "Catholic" (undefined) has been included with "Roman Catholic."

Religious Denominations.	Number.			Proportion per cent.		
	1891.	1901.	1911.	1891.	1901.	1911.
Protestant—						
Church of England	503,054	623,131	734,667	45·32	46·58	45·46
Methodist	112,448	137,638	151,392	10·13	10·29	9·37
Presbyterian	109,390	132,617	183,099	9·86	9·91	11·33
Congregational	24,090	24,834	22,656	2·17	1·86	1·40
Baptist	13,029	15,441	20,679	1·18	1·15	1·28
Lutheran	7,950	7,387	7,087	·72	·55	·44
Unitarian	1,329	770	844	·12	·06	·05
Salvation Army	10,315	9,585	7,413	·93	·72	·46
Other Protestants	9,741	14,251	54,395	·87	1·06	3·37
Total Protestants	791,346	965,654	1,182,232	71·30	72·18	73·16
Roman Catholic	286,911	347,286	412,680	25·85	25·96	25·74
Greek Church... ..	253	561	1,083	·02	·04	·07
Others—						
Jew, Hebrew	5,484	6,447	7,660	·49	·48	·47
Buddhist, Confucian, Moham- medan, &c.	11,508	8,035	5,114	1·04	·60	·32
Freethinkers, Agnostics, &c. ...	6,358	3,564	3,929	·57	·27	·23
No Denomination, No Religion ...	8,062	6,265	3,239	·73	·47	·21
Object to state	11,237	13,068	22,008	...	...	...
Unspecified	2,795	3,966	10,503	...	...	...
Total	1,123,954	1,354,846	1,648,448	100	100	100

NOTE.—The figures for 1911, for purposes of comparison with the previous Census returns, include persons within the Federal Capital Territory.

MINISTERS FOR THE CELEBRATION OF MARRIAGES.

Under the Registration of Births, Deaths, and Marriages Act, 1899, ministers of religion desirous of celebrating marriages in New South Wales must be registered by the Registrar-General of the State. The total number of ministers registered for the year 1912 was 1,541, those for each denomination being—Church of England, 491; Roman Catholic, 366; Methodist, 243; Presbyterian, 215; Congregational, 71; Baptist, 57; Church of Christ, 22; Salvation Army, 18; Seventh Day Adventists, 8; Jews, 6; German Evangelical Lutheran Church, 4; Evangelical Lutheran Church, 4; Presbyterian Church of Eastern Australia, 5; Reorganised Church of Jesus Christ of Latter Day Saints, 7; Australian Aborigines Mission, 6; Lay Methodist Church, 2; Catholic Apostolic Church, 2; The Aborigines Inland Mission, 2; Strict Baptist Church, 1; Society of Friends (Quakers), 1; Sydney Society of the New Church, 1; The Free Church, Banksia, 1; Unitarian Church, 1; Church of Christ, 1; Greek Orthodox Church, 1; Church of the Brethren, 1; Particular Baptist Church, 1; Sydney Christadelphian Ecclesia, 1; Ocean-street Congregational Church, Woollahra, 1; Whitefield Devonshire-street Congregational Church, 1.

FOOD AND PRICES.

FOOD SUPPLY.

NEW South Wales is capable of producing in abundance most of the materials essential to the sustenance of human life, and so far as actual necessities are concerned the State is practically independent of outside assistance. Despite the comparatively high rate of wages which prevails, food of all kinds is readily obtainable, and articles of diet, which in other countries are almost within the category of luxuries, are in New South Wales largely consumed by all classes of the people, indicating a fairly high standard of living.

In the portions of this Year Book dealing with primary production, sufficient evidence is given in detail as to the various industries, viz., pastoral, agricultural, dairying, mining, forests and fisheries, and manufacturing, to show the extent to which the State is independent of external sources of supply, though naturally as a community yet in an early stage of development, it is to be expected that raw materials should, in the value of production, appear more largely than the products of manufactures which are usually coincident with a more advanced stage of development. Although in the production of necessities the State may be considered self-contained, there is admittedly opportunity for further and systematic development of its resources, as may be gathered by a study of the import and export trade figures in relation to primary products.

For purposes of review, a summary is given of the production from local industries. The extent to which food products are imported may be seen by reference to the section of this Year Book relating to Commerce.

VALUES OF LOCAL INDUSTRIES.

The total value of production from the principal industries reached the very satisfactory sum during 1910 of £63,793,000, which is far in advance of the total of any former year, and constitutes a record. The pastoral industry has for many years been the chief source of the wealth of the State, the production in 1910 being over 21 millions sterling.

The statement below shows the estimated value of production of the various industries, at the place of production, at intervals since 1891. The figures are the best approximations from the data available :—

Value of Production. (*In thousands, 000 omitted.*)

Year.	Pastoral.	Agricultural.	Dairying.	Poultry, Bees, Rabbits.	Mining.	Forests and Fisheries.	Manu- facturing.	Total. All Industries.
	£	£	£	£	£	£	£	£
1891	14,725	3,615	2,735	.....	6,434	758	7,799	36,066
1896	11,774	5,374	2,546	.....	4,465	715	7,302	32,176
1901	12,552	7,060	3,046	.....	5,681	733	9,742	38,814
1902	10,731	4,139	3,403	.....	5,102	695	10,000	34,070
1903	12,777	8,359	3,276	.....	5,958	779	9,601	40,750
1904	13,373	5,414	2,753	799	6,243	900	9,899	39,381
1905	17,113	6,543	3,123	1,228	6,897	1,190	10,631	46,725
1906	19,743	7,518	3,425	1,693	7,913	1,536	11,906	53,734
1907	22,281	6,588	3,567	1,708	10,295	1,382	13,481	59,302
1908	18,846	8,319	4,064	1,732	8,384	1,165	13,633	56,143
1909	19,040	10,908	3,983	1,990	7,403	1,096	14,536	58,956
1910	21,028	9,493	4,796	2,119	8,455	1,108	16,794	63,793

In the next statement are shown the equivalent values, per head of population, of the products of local industries over the same periods, viz. :—

Value per head.

Year.	Pastoral.	Agricultural.	Dairying.	Mining.	Forestry, Fisheries, and Other Primary.	Manu- facturing.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1891	12 13 5	3 2 2	2 7 1	5 10 9	0 13 1	6 14 2	31 0 8
1896	9 4 0	4 4 1	1 19 10	3 9 10	0 11 2	5 14 2	25 3 1
1901	9 3 7	5 3 3	2 4 7	4 3 1	0 10 9	7 2 6	28 7 9
1902	7 14 2	2 19 6	2 8 11	3 13 4	0 10 0	7 3 8	24 9 7
1903	9 0 9	5 18 3	2 6 4	4 4 3	0 11 0	6 15 9	28 16 4
1904	9 6 0	3 15 3	1 18 3	4 6 10	1 3 8	6 17 8	27 7 8
1905	11 13 2	4 9 2	2 2 6	4 14 0	1 12 11	7 4 10	31 16 7
1906	13 3 1	5 0 2	2 5 8	5 5 5	2 3 0	7 18 8	35 16 0
1907	14 9 9	4 5 8	2 6 5	6 13 11	2 0 2	8 15 4	38 11 3
1908	12 0 6	5 6 2	2 11 11	5 7 0	1 17 0	8 14 0	35 16 7
1909	11 19 2	6 17 0	2 10 1	4 13 0	1 18 9	9 2 8	37 0 8
1910	12 19 3	5 17 0	2 19 2	5 4 3	1 19 9	10 7 1	39 6 6

Prior to 1904 the value of production from poultry and bee farming was included with Dairying, but has subsequently been included among the other primary products.

The following table shows the total value of production in various years from 1871 onwards, and the resultant return per head of population :—

Year.	Value of Production.	Value per head of Population.
	£	£ s. d.
1871	15,379,000	30 5 3
1881	25,180,000	32 18 3
1891	36,066,000	31 0 8
1901	38,812,000	28 7 9
1906	53,734,000	35 16 0
1907	59,302,000	38 11 3
1908	56,143,000	35 16 7
1909	58,956,000	37 0 8
1910	63,793,000	39 6 6

These figures show that since 1871 the aggregate value of production has increased by over 48 million pounds, and the value, per head of population, by over £9. From the primary industries alone the return in 1910 was £46,999,000, equal to £28 19s. 5d. per head, or what is perhaps a better standard, £151 8s. 7d. per square mile. Variations in prices, mainly due to causes quite beyond local control, and the general conditions of the season, are the most powerful factors in regulating the volume and value of production; but making due allowance for these factors, the steady advance noticeable throughout the period covered by the figures given above is a magnificent testimony to the wealth of the State, and the bountiful returns which it yields. The figures are unsurpassed by any country outside Australasia, and afford ample justification for the investment of the capital which has secured such results.

PRODUCTION FROM RURAL INDUSTRIES.

From 1894 to 1910 the value of production from all rural industries has progressed steadily, the only appreciable backward steps being in 1902 and 1904, when relatively bad seasons were experienced. But taking the average of quinquennial groups, viz., 1894-8, 1899-1903, and 1904-8, the progress is most noticeable:—

Year.	Value of Production (ex Mining and Manufacturing).	Average Annual Value in Quinquennial Groups.	Year.	Value of Production (ex Mining and Manufacturing).	Average Annual Value in Quinquennial Groups.
	£	£		£	£
1894	17,845,000	20,104,000	1904	23,230,000	31,201,000
1895	19,136,000		1905	29,197,000	
1896	20,409,000		1906	33,915,000	
1897	21,476,000		1907	35,526,000	
1898	21,652,000		1908	34,126,000	
1899	23,318,000	22,969,000	1909	37,017,000	37,780,500
1900	23,976,000		1910	38,544,000	
1901	23,391,000				
1902	18,968,000				
1903	25,191,000				

Taking the annual average for the first quinquennium in 1894-8 as 100, the average for the second quinquennium was 114, and for the third, viz., 1904-8, it was 155 or half as much again. For the last two years, 1909-10, the average was £37,780,500 per annum, representing 188, as compared with the standard of 100 for 1894-8. These values are for products at the farm, &c., not at the commercial exchange. As compared with the annual average of total production for the same quinquennial groups, the rural industries contributed respectively 62, 60, 61, and 61.5 per cent.

PRODUCTION FROM ALL INDUSTRIES.

In the following table the various industries have been grouped so that a clear idea may be gathered of their relative importance in adding to the national wealth. To extend the comparison, the figures for the last two years are shown in contrast with the figures for 1901, the opening year of the decade.

As previously stated, the figures show the actual value received by the producers at the place of production, and in the manufacturing industry they represent the value added to raw materials by the processes of treatment, not the value of articles manufactured or work done:—

Industry.	Value of Production.					
	Total.			Per head of Population.		
	1901.	1909.	1910.	1901.	1909.	1910.
	£	£	£	£ s. d.	£ s. d.	£ s. d.
Manufacturing and allied processes ...	9,742,000	14,536,000	16,794,000	7 2 6	9 2 8	10 7 1
Agriculture ...	7,060,000	10,908,000	9,493,000	5 3 3	6 17 0	5 17 0
Dairying ...	3,046,000	3,983,000	4,796,000	2 4 7	2 10 1	2 19 2
Pastoral industry ...	12,552,000	19,040,000	21,028,000	9 3 7	11 19 2	12 19 3
Mineral production ...	5,681,000	7,403,000	8,455,000	4 3 1	4 13 0	5 4 3
Forestry and fisheries..	733,000	1,096,000	1,108,000	0 10 9	0 13 9	0 13 8
Minor industries (poultry, bees, rabbits, &c.)	.....	1,990,000	2,119,000	.....	1 5 0	1 6 1
Total ...	38,814,000	58,956,000	63,793,000	28 7 9	37 0 8	39 6 6

IMPORTS AND EXPORTS.

During 1909 domestic produce to the value of £33,446,016 was exported, viz., to other Australian States, £11,674,436; to countries overseas, £21,771,580. The value of local production unexported was £25,509,984, being less than half the total value of local production. These unexported local products were supplemented by imported goods to the value of £38,034,962. In Part Commerce, full details are given as to the import and export trade of the State; a review of the figures shows that the value of food and drink, &c., imported during 1909 was £6,896,310; textiles and dress stuffs were valued at £6,686,816, these two groups thus representing 18·13 per cent., and 17·58 per cent. of total imports respectively.

Domestic produce exported included commodities, other than gold, to the value of £32,658,639, and of these commodities, food and drinks, &c., were worth £4,559,003; textiles and staple animal and vegetable substances, £17,556,465. Naturally, wool holds first place among the articles of export; and far lower down in the scale come skin and hides, then meat; these products range between $1\frac{1}{2}$ and $1\frac{1}{2}$ million pounds in value annually.

With the cessation, on the 13th September, 1910, of the system of keeping records of all interstate trade, it has become impossible to determine the value of imports to, and exports from, the State, or to assess the extent and value of commodities consumed, or, in some cases, produced locally. Consequently, tables which have been published for many years, and in which great public interest has always been taken, will have to be discontinued.

FOOD CONSUMPTION.

The average consumption per capita of the principal articles of diet, based on an average of three years, ending in December, 1909, shows the following approximations :—

		lb.	lb.			lb.	lb.	
Meat	{ Beef	...	139·5	Butter	{ ...	...	25·4
	{ Mutton	...	97·1		{ Fresh	...	7·0	13·0
	{ Pork	...	10·8		{ Preserved	...	6·0	
Flour	...	...	222·3	Rice	...	...	8·0
Potatoes	...	...	176·2	Oatmeal	...	...	7·4
Sugar	...	...	101·1	Tea	...	...	7·1
Salt	...	...	37·5	Cheese	...	...	3·4

The remarkable feature in the per capita quotations for New South Wales is the extraordinary amount of meat used. In other countries where meat and butter are not easily obtainable these articles are replaced in the dietary, *e.g.*, by cheese which is a cheap and nutritious substitute for meat, and by suet and other fats. Yet it is noticeable that the inclusive total of meat, butter, and cheese for the German families as quoted above barely approximates to one-third of the estimated per capita consumption of these articles in New South Wales. But the consumption of fresh meat within the State is now far below the average of earlier years. The immediate cause of the diminished consumption was the sudden increase in prices during 1901, when the retail values rose 50 per cent. above those of the preceding year. Prices have not since fallen to their former level, being stimulated by the large export trade; and production generally has become more varied, so that the population, unable to maintain the former liberal consumption of animal food, has substituted a more varied dietary made up by vegetables and cereal foods, and fish in small but increasing quantities.

Fish.

The local supply marketed, which constitutes the bulk of fresh fish consumed, amounted in 1910 to 13,430,364 lb., exclusive of crayfish and oysters. These figures allow of an average of 8 lb. per head of population per annum, or approximately $\frac{2}{3}$ of an ounce per head per day. It is estimated that approximately 4,000,000 lb. is disposed of each year throughout the State without passing through the recognised markets; supplies pass, unrecorded, from the northern rivers into Queensland, from the south into Victoria, and from various rivers to country towns.

The apparent consumption of recorded marketed supplies and of imports during 1910 aggregated 20,032,202 lb. of fish, in addition to 10,643 doz. crayfish, and 20,700 cwt. of oysters. The figures for 1910 represent the maximum output over a period of many years. Contrasted with the local consumption of fresh meat, which averaged almost 11 oz. per capita per day, or with the consumption of fish in other countries, this practical failure of fish foods to enter into the ordinary dietary is matter of great concern, and it may therefore be of interest to refer to the fishing industry generally, and the sources of local supplies, of which details are quoted in the sections of this Year Book devoted to primary industries.

Fish supplies imported during 1910 were valued at £216,884; local marketed production at only £158,896; exports at £27,276. The value of the quoted consumption is assessed at £348,504. In other countries the fishing industry gives employment for many people, and cheap and valuable food for all; and further it assists in training a proportion of sea-faring folk in the community. But the extent to which the State has hitherto been dependent on imported fish supplies is no criterion of the potentialities of the local industry.

Potatoes.

The consumption of potatoes is subject to considerable fluctuation. In 1904 it apparently amounted to 125,000 tons, but fell to 87,000 tons in the succeeding year when prices became higher. In 1908 it reverted to the figures of 1904, but in 1909 it dropped to 96,000 tons. The local production varies greatly, but is seldom equal to the demand, and the State is usually compelled to import supplies, mainly from the neighbouring States.

Sugar.

Sugar is freely consumed, reaching the average consumption of 101·1 lb. per head of population. The northern rivers district is well adapted to the growing of sugar-cane, and during the four years ended on 31st March, 1899, the average area cut was over 15,000 acres. With the growth of dairy-farming the industry has declined, and now within the State less than 7,000 acres of cane are cut annually.

In New South Wales only one company is engaged in sugar milling and refining; its mills in Australia number six, of which four are in New South Wales. All the sugar is produced from cane; beet is not grown for sugar in the State. All sugar imported is subject to the Federal duty of £6 per ton; the excise payable on Australian grown sugar is £4 per ton, of which £3 per ton is returnable by way of bonus on sugar grown by white labour; thus protection is given to Australian-grown white-labour sugar to the extent of £5 per ton. In New South Wales cane is grown on the northern rivers (*vide* part Agriculture), but locally grown and crushed cane forms but a comparatively small proportion of the raw sugar treated in the local refinery.

In connection with the Burrinjuck irrigation area, it is anticipated that land particularly well suited for sugar-beet growing will become available shortly, and it is hoped that from this area will come the supplies necessary to add beet sugar to the list of commodities produced within the State.

Alcoholic Beverages.

Compared with other countries the average consumption per head of population of alcoholic beverages in Australia is moderate, as will be seen from the following table. The figures are based on the latest available data, and in the majority of cases represent the average of the years 1905-1909:—

Country.	Consumption per Head of Population.		
	Spirits.	Wine.	Beer.
	galls.	galls.	galls.
Germany... ..	1·48	1·19	23·7
Netherlands	1·39	·35	8·0
France	1·83	34·50	8·0
United States	1·23	·49	16·1
Canada	·87	·10	5·5
United Kingdom	·86	·27	27·4
Australia	·82	1·14	11·0
New Zealand	·77	·14	9·8
Italy	·43	25·80	9·2
Union of South Africa	·42	·62	1·3

Of the representative countries quoted, Germany, France, and the United Kingdom, are respectively the greatest consumers under the three heads of spirits, wine, and beer; and it is worthy of note that Australia compares so favourably in all three classes.

CONSUMPTION OF INTOXICANTS.

As with other commodities, so with alcoholic beverages, it is now impossible, as has been explained, to compute the volume and value of local consumption. To supply a basis for approximations, however, details are given as to the ascertained consumption up to and inclusive of 1909, when the volume of spirits consumed in New South Wales was 1,295,400 gallons (proof), of which 123,800 gallons were Australian, and 1,171,600 gallons were imported. The consumption per head, 0·81 gallons, was equal to the average for the previous five years, as will be seen from the following table :—

Year.	Consumption of Spirits.		Year.	Consumption of Spirits.	
	Total.	Per Inhabitant.		Total.	Per Inhabitant.
	gallons.	gallons.		gallons.	gallons.
1891	1,268,368	1·11	1903	1,127,222	0·80
1895	921,468	0·73	1904	1,126,400	0·78
1898	986,325	0·74	1905	1,131,500	0·77
1899	1,005,799	0·75	1906	1,163,600	0·78
1900	1,103,969	0·82	1907	1,419,900	0·92
1901	1,245,652	0·90	1908	1,188,200	0·76
1902	1,260,438	0·90	1909	1,295,400	0·81

The average consumption of beer per head of population declined considerably from 1891, when the rate was 11·43 gallons per capita, and in 1905 was lower than in any previous year for which information is available, namely, 8·99 gallons per head. The rate subsequently rose in each year to a maximum of about 10 gallons annually for each inhabitant. The consumption of imported beer decreased, though not to the extent indicated in the following table, as in the two earlier years the figures included imports from other Australian States :—

Year.	Consumption of Beer.			
	Locally brewed.	Imported.	Total.	Per Inhabitant.
	gallons.	gallons.	gallons.	gallons.
1900	13,274,734	1,618,966	14,893,700	11·00
1901	13,118,339	1,757,907	14,876,246	10·88
1902	13,441,275	1,121,277	14,562,552	10·46
1903	12,571,758	1,011,465	13,583,223	9·61
1904	12,079,400	940,900	13,020,300	9·05
1905	12,327,900	867,800	13,195,700	8·99
1906	12,716,800	812,400	13,529,200	9·01
1907	14,278,800	945,700	15,224,500	9·90
1908	14,856,800	906,800	15,763,600	10·06
1909	15,240,000	973,500	16,213,500	10·18

The wine entering into consumption in New South Wales is chiefly the produce of Australian vineyards; but the quantity produced in the State is much less than might be expected in a country so eminently adapted for viticulture. The quantity of Australian and foreign wines consumed during recent years is shown below :—

Year.	Consumption of Wine.			
	Australian.	Foreign.	Total.	Per Inhabitant.
	gallons.	gallons.	gallons.	gallons.
1899	831,765	75,493	907,258	0·67
1900	816,908	87,026	903,934	0·67
1901	700,017	93,984	794,001	0·58
1902	851,539	167,921	1,019,460	0·73
1903	845,333	107,551	952,884	0·67
1904	941,100	40,500	981,600	0·68
1905	1,075,500	29,100	1,104,600	0·75
1906	1,094,600	39,400	1,134,000	0·76
1907	927,000	43,000	970,000	0·63
1908	850,800	41,800	892,600	0·57
1909	877,700	43,600	921,300	0·58

TOBACCO.

The consumption of tobacco during the last seven years is recorded below :—

Year.	Total Consumption.			Per head of Population.		
	Tobacco.	Cigars.	Cigarettes.	Tobacco.	Cigars.	Cigarettes.
	lb.	lb.	lb.	lb.	lb.	lb.
1903	3,365,500	180,400	440,100	2·38	·13	·31
1904	3,199,200	184,000	512,000	2·22	·13	·36
1905	3,426,200	189,100	525,400	2·33	·13	·36
1906	3,603,000	202,900	558,800	2·40	·14	·37
1907	3,607,700	271,400	622,000	2·35	·18	·40
1908	3,747,800	244,800	690,700	2·39	·16	·44
1909	3,724,100	223,300	719,800	2·34	·14	·45

The quantity of tobacco consumed in 1909 was 4,667,200 lb., the figures including tobacco, cigars, and cigarettes. This is equivalent to 2·93 lb. per inhabitant, and is a little below the average of 1908, which was 2·99 lb. per head. The consumption is gradually increasing, as ten years ago the average per head was just over 2½ lb., and from 1900 to 1904 not quite 2½ lb. per head. The figures for 1909 are as follows :—

Description.	Consumption of Tobacco, 1909.			Per head of Population.
	Imported.	Australian.	Total.	
	lb.	lb.	lb.	lb.
Tobacco ...	492,600	3,231,500	3,724,100	2·34
Cigars ...	114,100	109,200	223,300	·14
Cigarettes ...	42,100	677,700	719,800	·45
Total ...	648,800	4,018,400	4,667,200	2·93

In regard to the description of tobacco used there had been a large increase in the quantity of cigarettes. In 1890 about 88 per cent. of the total consumption was of ordinary tobacco, in 1909 the proportion had fallen to 80 per cent.; of cigars, the consumption was about 8·5 per cent., as compared with 5 per cent.; and of cigarettes 3·5 per cent. in 1890, compared with 15 per cent. in 1909.

MARKETING.

Practically all commodities have hitherto been distributed by private agents and consignees, and from all parts of the State a diversity of products gravitates to Sydney which is at present the only oversea port of the State, excepting of course, Newcastle, from which port however the principal trade is in coal. In connection with the trade in wool, wheat, and live-stock (and these three commodities with butter can be taken as the most important items of the State's oversea trade), there is reason enough for the concentration in Sydney, *e.g.*, practically all the wool clip, excepting the relatively small proportion which goes to Melbourne from Riverina stations, is forwarded to Sydney, because the Sydney sales tend more and more each year to take first place as a world market. As regards wheat for export, the softer northern wheat must be combined with a harder grain, and Sydney forms the most convenient *dépôt*. In the trade in live-stock, business is largely dependent on centres of population and distribution, and the traffic can be decentralised only so far as the frozen meat trade is distributed to various ports provided with accessories for killing, freezing, and shipping.

The conditions which have thus necessitated the centralisation of the State's trade in Sydney have resulted in an apparently overgrown city, and in frequent congestion of traffic, and these conditions, coupled with the occasional interruptions to sea-borne traffic as in butter and eggs from the North Coast, naturally react promptly on prices.

The markets for various commodities are concentrated closest to the points at which the goods are discharged, *e.g.*, the railway goods yards, and the wharves where coastal and oversea cargoes are discharged, also tend to become market places.

MUNICIPAL MARKETS.

Under the Sydney Corporation (consolidating) Act of 1902, the City Council has power to establish public markets within its boundaries for the sale of fruit, vegetables, fish, produce, or general merchandise, each market to be subject to all the laws affecting markets in the City; the Council may grant licenses for hawking and selling in the city, poultry, fish, vegetables, garden produce, and other articles as provided under the by-laws; it has a practical monopoly, within the city and within 14 miles of the city boundary, of cattle sale-yards, and power to exercise a similar monopoly in regard to sheep, calves, pigs, horses, &c. Under the Amendment Act of 1905, the Council has power to make by-laws for the regulation and control of all stands and stalls used, in any public way in the city, for the sale of refreshments or fruit.

Under the Local Government Act of 1906, municipalities (excluding Sydney) enjoy among their primary functions control as to the regulation and licensing of the hawking of goods; both shires and municipalities have power to lease buildings, wharfs, markets, &c. Among the specific powers of shires is included dairy supervision; among the additional powers which may be acquired by shires and municipalities are those relating to the construction, establishment, and maintenance of cattle sale-yards and abattoirs; the construction, maintenance, and management of public markets; regulation

of the holding of markets; charging and regulation of rents and fees for the use of stalls in buildings and places where markets are held, and of fees in respect of goods and animals brought for sale or sold therein; inspection and regulation of the wholesale and retail sale and of the storage and exhibition for sale of fish, and of oysters and crustaceæ, and of rabbits, poultry, and game; the regulation and supervision of the sale, storage, and exhibition for sale, conveyance, and mode of delivery by carcase or otherwise, of meat for human consumption, and of the disposal and removal of other meat, and of any blood, offal, or other refuse.

CITY MARKETS.

The Municipal Council of Sydney, as the custodians of the health of the citizens of Sydney, realise that, besides carrying out the functions necessary to provide a clean city, both as regards streets, parks, and sanitary dwellings, an important aspect of their responsibility lies in the control and distribution of its food supplies. To this end the Council has undertaken the provision of a scheme of markets that is unequalled in the southern hemisphere.

Being charged with full and adequate powers of resumption of lands, areas totalling about 12½ acres were resumed in 1908 in the Engine-street area, then a closely populated district, and also a growing manufacturing centre. Thus a slum area with narrow streets and lanes, and damp and ill-ventilated dwellings in a low lying area was displaced, and space given for the erection of a series of handsome structures providing for the marketing, in separate buildings of vegetables, farm produce, fruit, fish, and poultry.

The total cost of this scheme, including the opening of additional roadways, and the widening of those existing, is estimated at nearly half a million pounds sterling, and the area and cost respectively of the several markets is set down as follows:—

Market.	Floor Space.	Cost of Market.	Market.	Floor Space.	Cost of Market.
	sq. ft.	£		sq. ft.	£
No. 1—Vegetable.	95,560	127,000	Fish	47,517	49,000
No. 2—Produce ...	45,300	48,300	Poultry	2,200	27,500
No. 3—Fruit ...	143,000	119,500			

The Council also has control of the metropolitan cattle sale-yards for sheep and cattle at Flemington (8 miles from the city), and the small-stock yards within the city.

On three days in the week the vegetable market is opened at 4 a.m., and the remaining days at 6 a.m.; it has provision for 288 stalls which are occupied by the *bona fide* grower, who brings his own produce to market, and conducts the sale by private treaty; a different set of growers coming on the early days to those on the other days. The stalls are allotted to individual growers, who occupy them regularly. The charges are on the dues system at 1s. 6d. per cart load, and the minimum amount that must be paid for each stall is 3s. The quantity of vegetables dealt with per annum, in favourable seasons, is estimated to range from sixteen to twenty thousand tons.

The produce market is occupied almost entirely by agents who receive products from the country and over-sea; these agents are allotted stands on the scale of 1s. 6d. per load, with an additional reserving fee of 1s. per week for the particular stand. Surrounding this market is a series of stores which are leased to the agents who do a forwarding and distributing business to suburban and distant centres.

The fish market is managed on an entirely different plan, and is in reality, apart from the electric lighting undertaking, the only municipal trading venture of the Council. Fish are consigned direct to the Council from the various districts, and are disposed of by the Council's officers at auction.

Salt water, pumped from the harbour, is supplied to the markets, and the fish, cleaned in commodious troughs, are displayed on marble slabs. There is also a cooling chamber which is fully availed of by shopkeepers, and others in the business.

The action of the fish agents in deciding to form a co-operative society, to build their own markets, and virtually boycott the council because it was proposed to insist that all fish coming into the market should be sold by public auction, and that the auctioneers should submit a carbon copy of each day's sales to the council for record purposes, was the primary cause of the council's intervention in this business. From numerous complaints of fishermen, there seemed no doubt that the agents were not giving them the full return of their sales, and were forwarding returns based, not upon the actual prices obtained for the fish, but on a rate which by mutual agreement on the part of the several agents, became almost a fixed quantity. On the other hand, many fishermen were in debt to the agents for boats and nets, even to the extent of their food supplies, and the agents recovered payment, in instalments, of these debts, by deductions from time to time from the account sales. To insure fair business, insistence on the two points above referred to, viz., public auctions, and duplicate records, was deemed essential.

On the 1st February, 1909, all the agents left the market without giving the slightest notice. The Council then undertook to receive the consignments of fish direct from the fishermen, and dispose of same by public auction at a charge of 5 per cent. above actual running expenses.

The Council's action has undoubtedly been beneficial both for the fishermen and the consumer, though not in the direction of lessening the price to the latter. The class and condition of the fish put before the public has improved, and agents operating in other markets have increased their returns to the fishermen.

The fruit market was designed as the Council's greatest and most modern building replete with every convenience for the speedy and careful handling of this delicate food product. Fruit may be landed straight into the market from the orchards by means of a special railway siding, 292 feet in length, thus saving at least two handlings, and provision is being made for sales by auction, if the consignors so desire, the present system of sale being entirely by private treaty. In connection with this market, commodious cool storage is projected with a total chilled air space of 250,000 cubic feet, divided into chambers for the freezing and cooling of fruit, fish, poultry, farm produce, and rabbits. Within the market area an elevated series of offices will be provided, and a disinfecting chamber for fruit, imported and exported, will also be erected.

The poultry market is the only municipal poultry market in Australia, and will be so arranged as to provide space and pen accommodation for from fifteen to twenty thousand head of poultry, as well as a special floor for eggs, bacon, butter, cheese, &c.

In all these markets the officers of the Council are charged with the necessary authority for inspection and condemnation, thus ensuring to the citizens a pure food supply.

The cattle sale-yards at Flemington cover an area of 66 acres, and are capable of accommodating on one day from 80,000 to 100,000 head of sheep and lambs, and 2,500 head of cattle.

Sales are held on Monday and Thursday of each week, and are conducted by auctioneers to whom pens are allotted according to the number of stock arriving. Sales are held in rotation according to drawing, and are limited in time according to the number of consignments.

The Council charge dues at the rate of $\frac{3}{4}$ d. for sheep, and 5d. for cattle, per head.

The following table shows the number of stock dealt with since the inception of the stock sale-yards and abattoirs in 1882 :—

RETURN of stock yarded at the Metropolitan Cattle Sale-yards from 1st November, 1882, to the 30th June, 1911.

Year.	Sheep.	Cattle.	Year.	Sheep.	Cattle.
1882 and 1883	939,031	83,032	1898	2,692,250	113,508
1884	1,169,990	80,477	1899	2,163,704	104,681
1885	1,286,886	83,692	1900	2,000,634	108,543
1886	1,263,773	84,829	1901	2,234,791	100,474
1887	1,511,427	93,295	1902	2,394,618	92,752
1888	1,336,513	91,215	1903	1,785,682	95,510
1889	1,546,770	90,274	1904	1,311,463	83,865
1890	1,634,330	93,406	1905	1,224,405	96,723
1891	1,968,569	112,222	1906	2,196,535	96,494
1892	2,506,810	114,160	1907	2,741,283	106,893
1893	3,209,690	110,450	1908	3,104,025	117,496
1894	2,749,703	119,124	1909	3,810,445	132,050
1895	2,953,156	135,805	1910	4,064,650	155,833
1896	2,689,441	111,032	To 30th June, 1911	1,640,321	97,826
1897	2,574,853	112,338			

The small-stock yards are at the foot of Market-street, adjacent to the various wharves, most of this class of stock coming from the coastal districts by sea.

Sales are held on three days each week ; on Tuesdays, for pigs, Wednesdays, for calves, and Fridays, for mixed consignments.

The number of stock yarded during 1910 and 1911 is as follows :—

1910	..	..	..	..	66,153 pigs ; 31,967 calves
1911 (to 30th June)	...	...	...	...	44,344 „ 17,863 „

PRICES OF COMMODITIES.

The determination of average prices of food products is a difficult matter, in view of the extensive area of New South Wales, its scattered population, and varying methods of transport, and the scarcity of large central markets. Consequently an average of prices prevailing throughout the State has not been attempted; in the following statements the figures represent prices determined in metropolitan markets; for country districts due allowance must be made for cost of transportation, &c.

WHOLESALE PRICES.

Average wholesale prices at Sydney sales of the principal kinds of farm and dairy produce are given in the following statement for the seven years, 1904 to 1910. The average for the year represents the mean of the prices ruling during each month, and does not take into account the quantity sold during the month. The figures are those quoted by the middleman and not those obtained by the producers :—

Farm and Dairy Produce.	1904.	1905.	1906.	1907.	1908.	1909.	1910.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Wheat ...bush.	0 3 2½	0 3 5	0 3 3	0 3 10	0 4 3½	0 4 9½	0 3 10
Flour ... ton	9 19 0	7 19 6	7 11 6	8 15 0	9 11 0	11 2 0	9 14 6
Bran ...bush.	0 0 6½	0 0 9½	0 0 9½	0 0 11½	0 1 3	0 0 11½	0 0 10½
Pollard ... "	0 0 7½	0 1 0½	0 0 10½	0 0 11½	0 1 3½	0 1 1	0 0 10½
Barley ... "	0 2 2½	0 2 8½	0 3 5½	0 3 5	0 4 9	0 3 1	0 3 0½
Oats ... "	0 2 2½	0 2 7½	0 2 10½	0 2 10	0 3 3	0 2 5½	0 2 5½
Maize ... "	0 2 2	0 3 2½	0 3 0	0 3 2½	0 4 7	0 4 2½	0 2 11½
Potatoes... ton	3 8 9	7 7 6	7 10 0	3 5 0	5 15 0	5 17 0	6 14 8
Onions ... "	3 10 3	14 8 3	6 9 0	4 8 3	6 5 0	6 16 6	4 16 3
Hay—							
Oaten or Wheaten ..	2 19 6	3 5 9	3 12 0	4 6 6	6 5 9	4 2 0	3 17 6
Lucerne .. "	2 6 3	3 0 10	3 17 0	4 19 0	5 4 0	3 19 0	3 1 7
Straw ... "	1 19 0	1 14 3	2 4 0	2 19 0	4 2 9	4 2 0	4 2 7
Chaff ... "	3 6 0	3 11 3	3 13 6	4 8 0	6 1 3	4 10 6	4 4 0
Butter ... lb.	0 0 8	0 0 10	0 0 10	0 0 9½	0 1 0½	0 0 10	0 0 11½
Cheese(loaf) ..	0 0 4½	0 0 6½	0 0 6	0 0 6½	0 0 8	0 0 7	0 0 6½
Bacon ... "	0 0 7	0 0 6	0 0 7	0 0 8½	0 0 8½	0 0 8½	0 0 7½
Eggs ... doz.	0 0 11½	0 0 10	0 0 10	0 0 11	0 1 1	0 1 1	0 1 0½
Poultry—							
Fowls ... pair	0 3 6	0 2 8	0 3 3	0 3 9	0 3 9	0 4 3	0 4 10
Ducks ... "	0 3 3	0 2 6	0 3 3	0 3 0	0 3 0	0 4 3	0 3 1½
Geese ... "	0 5 9	0 4 6	0 5 3	0 5 9	0 6 3	0 5 3	0 6 2
Turkeys.. "	0 10 6	0 12 0	0 11 6	0 11 9	0 11 3	0 14 0	0 12 8
Bee produce—							
Honey ... lb.	0 0 2	0 0 2½	0 0 3½	0 0 3	0 0 2½	0 0 3	0 0 3½
Wax ... "	0 1 1½	0 1 1½	0 1 2	0 1 3½	0 1 2½	0 1 2	0 1 2

In comparison with these yearly averages, the averages of the wholesale prices current during each month of 1911 are quoted for the more important articles of New South Wales agricultural production, viz. :—

Month.	Wheat (Milling).	Flour.	Bran.	Pollard.	Oats.	Maize.	Hay (Oaten).
	per bushel. s. d.	per ton. £ s. d.	per bushel. d.	per bushel. d.	per bushel. s. d.	per bushel. s. d.	per ton. £ s. d.
1911.							
January	3 7½	8 17 6	10½	9½	2 6½	2 7	3 18 0
February	3 5	8 8 9	10½	10½	2 5½	2 6½	4 3 9
March	3 3	8 1 9	10½	10½	2 6	2 6	3 17 3
April	3 5½	8 5 0	11½	11½	2 7	2 5	4 7 0
May	3 4½	8 9 0	13	13	2 8½	2 6½	6 0 0*
June	3 3½	8 10 0	12	12	2 7½	2 7	6 3 0*
July	3 3½	8 7 6	12	11½	2 7½	2 8½	6 12 0*
August	3 6½	8 4 9	11½	11½	2 7½	2 11	4 6 9*
September	3 7½	8 12 6	12	12	2 9	3 7½	4 5 0
October	3 7½	8 13 9	12½	12½	2 9½	3 8½	4 1 9
November	3 8	8 13 9	12½	13	2 9½	3 11	4 4 9
December	3 7½	8 13 9	13	14½	2 10½	3 10½	5 4 0
1912.							
January	3 9	8 16 3	12½	13½	2 11½	4 2	5 13 3
	Potatoes (Local).	Butter (Best Brands).	Cheese (Loaf).	Bacon (Sides).	Lard (Bulk).	Eggs.	
						"Norths" and "Souths."	New Laid.
1911.	per ton. £ s. d.	per lb. d.	per lb. d.	per lb. d.	per lb. d.	per doz. s. d.	per doz. s. d.
January	5 11 6	9½	6½	7½	6½	0 9	1 0
February	5 0 0	9½	6½	7½	6½	0 10½	1 5½
March	5 8 9	9	5½	7½	6	1 2½	1 8½
April	5 11 6	9	5½	7½	5½	1 3½	2 0
May	4 11 3	9½	5½	6½	5½	1 6½	2 0
June		10½	5½	5½	5½	1 8½	1 10½
July	6 12 0	11½	6½	6½	5½	1 3	1 4
August	7 5 6	12	6½	6½	6	0 10	0 11½
September	5 15 9	11½	6½	7½	6	0 9½	0 10½
October	5 3 0	12	6½	8½	6	0 8½	0 10
November	4 10 0	12	7	7½	6	0 8½	0 11½
December	5 11 0	12	7½	7½	6	0 9½	1 1
1912.							
January	7 2 6	12½	6½	7½	5½	0 10½	1 2½

* Local supply very limited.

These figures call for little comment beyond the caution already given that in regard to the prices of commodities generally, the averages are irrespective of the quantities sold. As regards most of the articles in the list, the lower the price the larger the consumption. The exception to this rule is poultry, which is most in demand before the Christmas season, when prices are correspondingly high.

For locally-grown wheat the quotations during 1911 ranged from 3s. 8d. in November to 3s. 3d. in March. Of barley and oats, the bulk are imported, and the prices of these cereals during the year call for little notice. Maize, on the contrary, is largely of local growth, and its price varied from 3s. 11d.

in November to 2s. 5d. in April. Prices for the various kinds of fodder were very high during the greater part of the year 1908, but showed a considerable decrease during the last three months of that year, the decreased prices persisting subsequently. Root crops show very great range; thus, potatoes varied between £4 10s. in November and £7 5s. 6d. per ton in August.

Prices of the items set forth in the tables just given are determined by the local demand, wheat of course excepted, its price being fixed by that ruling in the markets of the world.

The prices of pastoral and other primary produce, which form so large a proportion of the exports of the State, are not sensibly affected by local consumption, but are established by the prices ruling in London. In the following table are given for six years the Sydney f.o.b. prices of the principal pastoral products:—

Pastoral Produce.	1906.	1907.	1908.	1909.	1910.	1911.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Beef lb.	0 0 1 $\frac{3}{4}$	0 0 2	0 0 2	0 0 2 $\frac{1}{2}$	0 0 2 $\frac{1}{2}$	0 0 2 $\frac{3}{4}$
Mutton „	0 0 2 $\frac{1}{4}$	0 0 2	0 0 2	0 0 2 $\frac{3}{8}$	0 0 2 $\frac{1}{2}$	0 0 2 $\frac{1}{4}$
Wool—Greasy „	0 0 10 $\frac{3}{4}$	0 0 11 $\frac{3}{4}$	0 0 9 $\frac{1}{2}$	0 0 9	0 0 9 $\frac{1}{2}$	0 0 9
Scoured „	0 1 8	0 1 9	0 1 4 $\frac{2}{3}$	0 1 3 $\frac{1}{2}$	0 1 3 $\frac{3}{4}$	0 1 3
Sheepskins—with						
Wool bale	30 10 0	28 8 4	17 18 4	19 11 8	20 0 0	17 15 0
Hides each	1 7 6	1 6 4	1 1 1	0 19 3	1 2 0	1 2 3
Leather bale	35 10 0	34 10 0	30 10 0	29 3 4	33 0 0	34 0 0
Hair lb.	0 1 11	0 1 7 $\frac{1}{2}$	0 1 4	0 1 5 $\frac{1}{2}$	0 1 4 $\frac{1}{2}$	0 1 3 $\frac{1}{2}$
Bones cwt.	0 8 8	0 7 11 $\frac{1}{2}$	0 7 6	0 7 8 $\frac{1}{2}$	0 9 3	0 12 1
Horns 100	1 15 2	1 13 9	1 13 4	2 4 7	2 2 11	2 2 10
Hoofs cwt.	0 8 3	0 6 7	0 6 6	0 6 10	0 6 3	0 8 3
Tallow „	1 4 9	1 11 3 $\frac{1}{2}$	1 8 3	1 7 3	1 10 0	1 8 6
Glue-pieces „	0 10 3	0 9 6	0 7 1	0 6 3	0 7 7	0 9 8 $\frac{1}{2}$

Leather is included as a pastoral product, although it might be regarded as a manufactured article. The prices of wool, the staple product of the State, declined considerably during 1908, and the level of 1907 has not since been reached. The prices of the other articles also showed a great decrease during that year. Sheepskins were 37 per cent. lower than in 1907. Greasy wool and scoured wool were over 25 per cent. higher than in 1901, but nearly 20 per cent. lower than in 1907. In 1909 the decreased prices of the previous year still prevailed in Sydney, but, on the whole, there was an improvement in the prices obtained for these products during 1910, notably leather, which was 13 per cent. higher than in the previous year, and further recovered during 1911.*

The following statement shows the fluctuations during 1911 in the London prices of the more important exported New South Wales produce :—

Month.	Wheat.	Flour.	Butter (Best Quality).		Wool.		Tallow.
			Top.	Bottom.	Greasy.	Scoured.	
1911.	per qr. s. d.	per ton. £ s. d.	per cwt. s.	per cwt. s.	per lb. d.	per lb. s. d.	per cwt. s. d.
January ...	37 0	9 2 0	106	104	10½	1 4	35 0
February ...	37 0	9 0 0	102½	98½	10	1 3	35 0
March ...	36 3	8 19 0	101½	98	10½	1 3½	35 0
April ...	36 0	8 16 0	104	100	10	1 3	32 0
May ...	37 0	8 18 0	98	95½	10	1 3	31 0
June ...	36 6	8 16 0	101	99	9½	1 3	28 0
July ...	36 0	8 11 0	*	*	9½	1 4½	31 0
August ...	36 9	8 16 0	119	113	10½	1 4½	31 0
September ...	37 0	9 1 0	122½	119½	10½	1 5	33 0
October ...	37 0	9 6 0	131	133½	10	1 5	33 0
November ...	37 0	9 0 0	127	124	9½	1 4½	33 0
December ...	37 3	8 19 0	129	127	9½	1 4½	33 0
1912.							
January ...	38 0	9 2 0	131	128	9½	1 3	33 0

* No quotations.

As the export trade is in process of development it is catered for almost without regard to local requirements, and it is noticeable that with some items, as butter, the London averages are considerably below Sydney prices.

PRICES OF METALS.

The next table shows the Sydney f.o.b. prices of the principal metals and of coal produced in the State. These, like the pastoral products, are not affected by the local demand, but depend upon the prices obtained in the world's markets :—

Metals.	1906.	1907.	1908.	1909.	1910.	1911.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Silver ...oz.	0 2 6½	0 2 6	0 2 0½	0 1 11½	0 2 1	0 2 0½
Copper ...ton	85 10 0	85 2 4	57 18 0	57 10 0	56 3 4	54 18 4
Tin ...,,	178 18 4	170 9 7	131 5 0	133 2 0	153 3 4	188 1 8
Lead ...,,	16 10 0	18 10 6	13 2 0	12 11 0	12 13 4	13 3 4
Coal ...,,	0 8 9	0 9 10	0 10 7	0 10 8	0 10 8	0 10 8

The values of the industrial metals showed a large decline during 1908, and the low prices continued during the following years, except in the case of tin, which has advanced steadily since the beginning of 1909, and is now much higher than in any of the past six years; lead also has recovered slightly. The export price of coal has during the last four years been maintained at a relatively high level as compared with 1906 and 1907.

PRICES IN UNITED KINGDOM.

To show the universal prevalence of rising prices, the following index numbers are quoted, as disclosed in investigation made by the British Board of Trade, of wholesale prices current in the United Kingdom in the years 1901-1910. As Great Britain is the principal market for New South Wales exports, it is evident that the upward tendency of prices in the world's

market must reflect promptly in local prices in many commodities, but especially in those in which the export trade is being developed; the figures are on the basis of 100 as representing the price in 1900:—

Year.	United Kingdom.				Foreign Wheat.
	Grain.	Meat, Fish, and Dairy Produce.	Sugar, Tea, Wine, and Tobacco.	Total Food and Drink.	
1901	102·5	100·0	95·0	100·4	97·4
1902	101·9	105·2	86·0	101·7	98·4
1 03	102·0	102·6	88·0	100·7	99·9
1904	106·8	99·0	92·6	101·4	103·1
1905	104·3	98·2	103·6	101·2	106·3
1906	102·2	101·5	90·4	100·5	103·4
1907	109·0	104·5	94·4	105·1	113·1
1908	113·9	102·6	98·6	106·6	123·5
1909	114·7	105·6	101·2	108·7	136·0
1910	105·7	111·6	109·9	109·1	123·4

LONDON RETAIL PRICES.

In the following statement is shown the range of London retail prices over the same series of years for six principal food products; 1900 prices still representing 100 in each case:—

Year.	Bread.	Beef.	Mutton.	Butter.	Eggs.	Potatoes.
1901	94·4	101·9	105·3	100·9	97·8	105·1
1902	101·4	107·5	101·8	100·4	100·9	79·5
1903	109·0	104·4	105·7	97·8	102·6	101·3
1904	108·1	100·9	105·3	97·7	102·2	109·6
1905	109·0	98·7	105·7	99·3	104·0	83·7
1906	104·3	98·7	103·7	102·6	106·7	86·4
1907	104·6	101·6	105·9	100·9	109·0	93·0
1908	112·8	108·4	106·1	106·4	106·7	97·3
1909	119·9	107·9	101·8	103·0	113·5	81·7
1910	114·8	113·5	104·4	106·4	112·0	80·1

The following statement shows the variation during the last six years of price levels as indicated by index numbers calculated on the f.o.b. prices Sydney, and based on London prices, of the principal articles of domestic produce exported from New South Wales, with the average prices prevailing in 1901 adopted as basic:—

Period.	General Index— All articles.	Index of Pastoral Products—Wool, Tallow, Hides, Leather, &c.	Index of Metals— Silver, Lead, Copper, Tin.
1901	1,000	1,000	1,000
1905	1,150	1,192	1,149
1906	1,277	1,316	1,432
1907	1,343	1,354	1,461
1908	1,164	1,122	1,073
1909	1,188	1,137	1,066
1910	1,205	1,214	1,111
1911	1,194	1,194	1,189

The fluctuations in the prices of the same series during 1911, as compared with 1901, are shown in the following figures:—

Period.	General Index— All Articles.	Index of Pastoral Products—Wool, Tallow, Hides, Leather, &c.	Index of Metals— Silver, Lead, Copper, Tin.
1911.			
January ...	1,196	1,219	1,154
February ...	1,196	1,263	1,179
March ...	1,158	1,187	1,144
April ...	1,153	1,155	1,159
May ...	1,167	1,151	1,214
June ...	1,160	1,151	1,184
July ...	1,191	1,192	1,202
August ...	1,201	1,203	1,198
September ...	1,229	1,239	1,178
October ...	1,239	1,244	1,192
November ...	1,219	1,201	1,230
December ...	1,239	1,236	1,226
1912.			
January ...	1,227	1,175	1,286

SYDNEY RETAIL PRICES.

The following table exhibits the average retail prices in Sydney of eight standard commodities at intervals since 1870:—

Year.	Bread per 2-lb. loaf.	Fresh Beef per lb.	Butter per lb.	Cheese per lb.	Sugar per lb.	Tea per lb.	Potatoes per cwt.	Maize per bushel.
	d.	d.	s. d.	s. d.	d.	s. d.	s. d.	s. d.
1870	3½	3½	1 3	0 6	4	2 0	5 0	3 4
1875	3	3½	1 3	0 9	4½	1 9	5 6	4 3
1880	3	3½	0 10	0 7	4	2 0	4 3	2 6
1885	3	4½	1 9	1 0	3	1 9	5 6	3 11
1890	3½	4	1 0	0 8	3½	1 6	6 0	3 10
1895	2½	3	1 0	0 8	2½	1 6	4 3	2 9
1900	3	3½	0 11	0 7½	2½	1 4	6 9	3 0
1901	3	5	1 0	0 8	2½	1 3	7 6	3 6
1902	3½	6	1 2	0 10	2½	1 3	7 6	5 10
1903	3½	5½	0 11	0 9	2½	1 3	5 10	4 6
1904	2½	5	0 10½	0 8	2½	1 3	4 0	2 9
1905	2½	5½	1 1	0 8	2½	1 3	10 6	4 0
1906	2½	5½	1 1	0 8½	2½	1 3	10 6	3 9
1907	3	5½	1 1	0 8	2½	1 3	4 6	3 10
1908	3½	5½	1 2½	0 10	2½	1 3	7 3	5 3
1909	3½	5½	1 1	0 10	2½	1 3	7 3	4 9
1910	3½	5½	1 1	0 9	2½	1 3	7 6	4 9
1911	3½	5½	1 1	0 9	2½	1 3	7 6	4 6

While these tables are useful for comparative purposes, in regard to the cost of living, the figures do not disclose the most interesting feature in a history of prices, namely, the fluctuations during each year, which are pronounced, especially in the case of perishable produce.

Potatoes show a remarkable range in prices. The lowest average since 1870 for a whole twelvemonth was 3s. 6d. per cwt. in 1873; and the highest, 10s. 6d., in 1905 and 1906, when the price was higher than at any previous period since 1858.

In the list are included quotations for bread at per 2-lb. loaf. In most years the price has varied directly with that of wheat. In recent years the usual price is from 3d. to 3½d. per loaf.

As bread is a first essential in the dietary list, a review of the conditions under which it is made and distributed may be of interest.

The price is determined by the Sydney and Suburban Master Bakers' Association, which, like similar associations existing in the other States, is affiliated with the Federal Association of Master Bakers. The bread-baking industry was governed in England by a specific Bread Act, passed in 1820, automatically operative in this State on the adoption of the Constitution; it was embodied in the Bread Act of 1901, which regulates the making and sale of bread, and the prevention of adulteration of bread, meal, or flour. Subsequent local legislation also affects the trade, *e.g.*, as to arbitration in regard to industrial conditions, purity of food standards, regulation of weights and measures. Prices are fixed from time to time by the Association, and are binding only upon its members; but little variation occurs, except in country districts where the force of competition is the principal factor in regulating the price.

In June, 1910, while the retail price of the 2-lb. loaf in Sydney was reduced to 3½d. booked, less ¼d. discount for weekly settlements, the wholesale price was 2s. 9d. per dozen loaves, shops being prohibited from selling over the counter at less than 3d. per loaf. At the same time, country prices ranged from 3d. to 3½d. per loaf. In Melbourne and suburbs the price was raised in July, 1910, from 2½d. to 3d. per loaf cash, and in 1911 was further raised to 3½d. per loaf, thus conforming to the Sydney price; while in Adelaide and suburbs the price was 3d. per loaf delivered, or 5½d. for two loaves purchased at the shops, the wholesale price being 2s. 6d. per dozen loaves. In Brisbane and suburbs the prices prevailing were 2d. per 1-lb. loaf, 3d. per 2-lb. loaf, and 6d. per 4-lb. loaf.

In addition to the eight commodities which are given in the above statement, the following list of the average retail prices of articles largely used is of interest:—

Year.	Bacon per lb.	Eggs per doz.	Rice per lb.	Oat- meal per lb.	Coffee per lb.	Salt per lb.	Beer (col.) per gal.	Soap per lb.	Starch per lb.	Tobacco per lb. (local.)	Tobacco per lb. (imp.)
	s. d.	s. d.	d.	d.	s. d.	d.	s. d.	d.	s. d.	s. d.	s. d.
1870	0 10½	1 4	3	4	1 2	1	1 4	4	0 7	1 3	3 6
1875	0 9½	1 6	3	3	1 2	1½	3 0	3	0 5	2 0	3 9
1880	0 7½	1 4	3	3	1 5	0¾	2 0	3	0 5½	2 0	4 0
1885	0 10½	1 10	3	3	1 5	0¾	2 0	3	0 6½	3 0	6 0
1890	1 0½	1 6	4	3	2 0	1	2 0	3½	0 5	4 0	6 0
1895	0 7½	1 0	2½	2	1 9	0¾	2 0	2	0 4	4 0	6 0
1900	0 7½	0 11	2¼	2¼	1 6	0¾	2 0	3	0 3½	4 0	6 0
1905	0 9	1 0	2½	2½	1 6	0¾	2 0	3½	0 5	4 3	6 0
1906	0 9½	1 0	2½	2½	1 6	0¾	2 0	3½	0 5	4 3	6 0
1907	0 10	1 1	2½	2½	1 6	0¾	2 0	4	0 5	4 3	6 0
1908	0 10	1 3	2½	3	1 6	0¾	2 0	4	0 5	4 3	6 0
1909	0 11½	1 3	2½	3	1 6	0¾	2 0	4	0 5	4 3	6 0
1910	0 10	1 3	2½	2½	1 6	0¾	2 0	3½	0 5	4 3	6 0
1911	0 9	1 3	2½	2½	1 6	0¾	2 0	3	0 5	4 3	6 0

In the above quotations the figures are those charged in the shops throughout the metropolitan district, and generally they indicate but slight variation during the whole period covered.

CONTRACT PRICES.

To show that it was possible to obtain commodities at lower prices, and to show also the variation in price according to the locality in which they were to be supplied, the following contract prices are quoted, being the prices current for goods supplied to the military forces in New South Wales during 1911, viz. :—

	Sydney.	North Sydney.	New- castle.		Sydney.	North Sydney.	New- castle.
	d.	d.	d.		d.	d.	d.
Bread ... ..per lb.	1 $\frac{1}{8}$	1 $\frac{1}{4}$	1 $\frac{1}{2}$	Sugar ... ..per lb	2 $\frac{1}{2}$	2 $\frac{1}{4}$	2 $\frac{1}{2}$
Beef { Fresh	2 $\frac{1}{2}$	3 $\frac{1}{8}$	3 $\frac{1}{4}$	Pepper	10	11	10
{ Corned ... ..	...	2 $\frac{3}{4}$	3	Salt	0 $\frac{1}{2}$	0 $\frac{3}{4}$	0 $\frac{1}{2}$
Mutton... ..	2 $\frac{1}{8}$	3 $\frac{1}{8}$	3	Raisins	6	5	6
Suet ... ..	...	3 $\frac{1}{2}$	3 $\frac{3}{4}$	Currants	4	6 $\frac{1}{2}$	5
Potatoes	1	1 $\frac{1}{4}$	1	Flour	1 $\frac{1}{2}$	1 $\frac{1}{4}$	1 $\frac{1}{2}$
Mixed Vegetables ..	1 $\frac{1}{2}$	3	1 $\frac{1}{2}$	Butter... ..	11	12 $\frac{1}{2}$	13 $\frac{1}{2}$
Tea	11	11 $\frac{1}{2}$	13	Mustard	10	11	10
Coffee	12	12	12 $\frac{1}{2}$				

PRICES OF FARM PRODUCTS.

Producers' Share of Consumers' Costs.

Investigation made by the Department of Agriculture at Washington has shown that throughout the United States of America for many years previous to 1897, or thereabouts, the prices of farm products received by the farmers were even less than the cost of production, and often little, if any, above that cost, so that during a long period of years the farmer was not thriving. In the upward price movement which began about 1897, the prices received by the farmer advanced in greater degree than those received by nearly all other classes of producers, but this was merely a matter of justice to the farmer to equalise the reward of his efforts with the rewards recovered in other lines of production. A summary of the results of these investigations as relating to specific products may be of interest.

Beef.—The consumers' price of beef averaged for 1909, over the United States, 38 per cent. more than the wholesale prices received by the great slaughtering houses, and it was found that the percentage increase was usually lower in the larger cities than in the smaller, and higher in the case of beef that is cheap at wholesale, than of high priced beef.

Milk.—Investigations in 1910 disclosed that dairymen then receiving relatively high prices for milk secured only 50 per cent. of the price paid by the consumer. The remaining 50 per cent. was distributed between freight and wholesalers and retailers charges. The average price paid by consumers was 8 cents (4d.) per quart.

Butter.—In the distribution of creamery butter from factory to consumer, the ultimate price includes railway charge for transportation, and the retailer's addition. As a general average, the creamery received 86.3 per cent. of consumer's price for creamery prints; freight charges represented 0.6 of 1 per cent. of consumer's price.

An Industrial Commission making exhaustive investigation had previously proved the general fact that the producer's percentage of consumers' price diminished as the quantity retailed was smaller, *i.e.*, the apple-grower received 55·6 per cent. of the consumer's price when the consumer bought by the bushel, and 66 per cent. when the purchase was by the barrel.

With regards to imports, the Commission discovered some striking comparisons between original value and consumer's price, *e.g.*, for coffee, of which 97·2 per cent. of United States imports were from Mexico, Central and South America, the import value, plus ocean freight charges ($\frac{1}{4}$ cent per lb.), ranged from 23-40 per cent. of the principal range of prices paid for coffee at retail.

STANDARDISATION OF FOODS.

Prior to the passing in New South Wales of the Pure Foods Act of 1908, attempts to fix and enforce standards of purity of articles for general consumption were made under Part IX of the Public Health Act, 1902, but since the enactment of a specific measure in conjunction with the supervision of dairies and of meat supplies, a definite system of regulation has become possible. Particulars as to the extent of operations under the Act are not available, but it is worthy of note that the completeness of the measure has evoked a conference of authorities in the Commonwealth and in the various States, with a view to securing uniform standards, on the lines of the New South Wales measure, in food and drugs throughout Australia. As it is natural to expect, the prevention of adulteration and short weight, &c., and the restriction on the use of preservatives have had the effect, while raising the standard of purity, of eliminating much competition among manufacturers in the production of cheap commodities, and in decreasing the scope for profit-making, necessarily giving some impetus to the demand of a higher price for a better quality article.

During 1910 an Interstate Departmental Conference was held in Sydney, which originated in a resolution adopted by the Conference of Premiers and Ministers in May, 1908, that "Uniform legislation for the standardisation of Australian manufactured food products is desirable." The Commonwealth Government being prepared to take action with respect to food and drugs imported into the Commonwealth, the enactment of uniform legislation was sought to secure a recognised standard for all Australia, both as regards imports, and all articles manufactured or vended. Several of the States having legislated in the matter of food standards, the object of the Conference was to discover standards which would permit of interstate trade, while protecting the consuming public. To this end the Conference resolved, *inter alia*, that it would be in the interest of the public health if the provisions of the Pure Foods Act passed in New South Wales in 1908 for the protection of the public from misleading or otherwise undesirable advertisements relating to food, drugs, and appliances, were adopted and enforced throughout Australia. The Conference issued a code of standards and regulations harmonising the standards set by existing State laws for foods and drugs, and further urged uniform administration of those various laws by the Central Department of Public Health of the State concerned.

As a further outcome of the Conference the President of the New South Wales Board of Health was appointed, during 1911, a Royal Commission to sit in each State of the Commonwealth and collect evidence as to ways and means of further standardising food products.

COST OF LIVING.

Recently considerable attention has been given to the question of the increased cost of living, so much so that a Royal Commission was appointed in July, 1911, to inquire into the circumstances surrounding the production and distribution of food supplies. The scope of the Commission was defined as follows:—To investigate, with special reference to Fish, Fruit, Milk, Meat, Vegetables, and Bread, the methods of—

Production;

Transport;

Handling and Manufacture;

Marketing or Distribution;

and to consider the inter-relation of export and import trades; the effect of combines, rings, &c., unions and arbitration, price fluctuations, adulterations, &c.; and the physiological value of foods. This Commission is still sitting, and the questions of food supply and increased cost of living are to be regarded as *sub judice*, so that only the merest generalisations can be made; but it is safe to assert that the cost of food supplies represents the heaviest item of expenditure.

Naturally, with an increase in the income, the relative costs of food and housing must decrease, as all restrictions of expenditure must apply to those things which are not absolute necessities before they affect the essentials of food and housing. So far as the acknowledged high and increasing cost of living in Australia is concerned, a reason for the increased cost of necessities may be found in the spread of educational facilities which have inspired all classes of workers to seek the best that their condition may permit. An instance of this may be found in the removal of slum areas in the city, thus compelling people to reside in the suburbs, and so helping to promote a considerable demand for housing accommodation, and a consequent rise in rents.

Contributory causes of the high cost of necessities may be traced in various directions. A rise in world prices for leading commodities, of which some indication has been given in relation to London prices, has been in a degree the basis of local prosperity, and has synchronised with an era of abundant production. Thus, in the cases of wheat and wool, heavy exports have had the benefit of high prices in the world's markets, with the result that money has been readily available. The construction of tariffs has affected incoming goods, and the enactment of industrial legislation, while alleviating conditions for the workman, has reacted on the general consumer, and in conjunction with legislation for the standardisation of food products, and the maintenance of combinations of capital has assisted to raise prices.

LOCAL GOVERNMENT.

It was not till the years 1905 and 1906 that legislation was passed giving the State of New South Wales full local government.

The Act of 1842, by which the City of Sydney was incorporated, contained no provision for conferring municipal privileges on other localities; but in 1843 the first step was taken towards the extension of the system to the country districts, by the incorporation, under letters patent, of Campbelltown, Appin, Camden, Narellan, and Picton, as one district council, which was subdivided into two, during the same year, by the formation of Campbelltown and Appin into separate councils.

In 1844 the number of country district councils had increased to eight, and these, in conjunction with the Municipal Council of Sydney and the Road Trusts, subsequently established, constituted the whole of the local government system prior to 1858. In the latter year the first important measure relating to general municipal government was enacted. An Act was passed, making provision for dissolving the district councils, and placing the area controlled by them under municipal bodies. Under its authority thirty-five districts were incorporated, which, with the exception of Cook, joined to Camperdown in 1870, and East St. Leonards and Victoria, subsequently united to St. Leonards, still exist, although many of the boundaries have been altered.

Under the Act of 1858, the municipal council was elected by the ratepayers, and its most important functions were to make by-laws for the good government of the municipality; to control roads, bridges, and ferries; and to remove nuisances. The general rate was limited to one shilling in the £ on the annual value of ratable property, but a special rate for water supply, sewerage, and street lighting was permissible. Endowment by the Government was provided during a term of fifteen years, based on the amount of general rates actually collected. No district, however populous, was obliged to become incorporated, and it was only on the presentation of a petition, signed by at least fifty of the prospective ratepayers, and containing a larger number of signatures than those attached to any counter petition, that a municipality could be formed.

MUNICIPALITIES ACT OF 1867.

The Act of 1858 was repealed by the Municipalities Act of 1867. Under this Act the thirty-five existing municipalities were continued as boroughs, and all areas incorporated in the future were to be classified either as boroughs or municipal districts. Boroughs might include any city, town, or suburb of the metropolis, or any populous country district with a population exceeding 1,000 persons and an area not less than 9 square miles. Municipal districts might include any area not containing a borough, with a population not less than 500 and an area not more than 50 square miles.

The powers of the councils were extended slightly, and the rate remained as before. It was still left optional for any district to become incorporated, and consequently local government was not generally adopted.

The Municipalities Act of 1897 consolidated the Acts and Amending Acts which had been passed from time to time, but did not alter their principles. The voluntary principle of incorporation which was retained was not conducive to the adoption of a general system of local government, as it was natural that, so long as the central Government continued to construct local works, the persons benefited would submit to the absence of local management of their affairs.

LOCAL GOVERNMENT (SHIRES) ACT.

The Local Government (Shires) Act, 1905, provides for the compulsory division of the State, with the exception of the city of Sydney and existing municipalities, the whole of the Western Division, the Quarantine Station, Lord Howe Island, and the islands in Port Jackson, into local government areas called shires. A sum, not less than £150,000, is paid as endowment annually from the Consolidated Revenue Fund, in the following proportions, viz.:—First-class shires, from nil up to 10s. per £; second-class, 15s. per £; third-class, 20s.; fourth-class, 25s.; fifth-class, 30s.; and sixth-class, 40s. or more. These endowments are payable on the amount of general rates received during the preceding year, but if the necessities of the shire do not warrant an endowment, it will not be paid. The endowment is to be fixed triennially, according to the area, revenue, and expenditure of the shires.

The councils may exercise the following powers:—The care, control, construction, fencing, and maintenance of all public places, except those vested in the Railway Commissioners, or other public bodies, or trustees, and except national works; regulation of traffic; street and road lighting; prevention of bush fires; flood relief and prevention; construction and maintenance of streets, jetties, wharves, and buildings for the transaction of business; and the administration of the Impounding and Public Watering Places Acts. Other powers may be acquired from time to time if the council decide that they are necessary for the good of the shire. Among these are prevention of nuisance; water supply; regulation and licensing of public vehicles and hawkers; management of parks and commons; and the administration of the Public Gates Act and the Native Dog Destruction and Poisoned Baits Act.

The shires are divided into ridings, each riding having equal representation on the council. The members are called councillors, one of whom is elected president. All owners and occupiers of ratable property of annual value not less than £5, over 21 years of age, male and female, unless not naturalised, are entitled to be entered on the electors' roll, and any male person enrolled is qualified to be nominated as a councillor. The usual conditions as to disqualification are provided, also the penalties for acting while not properly qualified. Elections are held triennially, the first of which was on 1st February, 1908.

An important provision in the Act is that the rates are charged on the unimproved value of the land, and not on the annual rental. The rate to be levied must be not less than one penny, nor more than two-pence in the £, unless the minimum rate is more than sufficient to meet the requirements of the shire, in which case representations may be made to the Governor, who may permit a rate of less than 1d. to be levied. The ratable value of coal-mines is fixed at 50 per cent. of the gross value of the average annual output for the preceding three years, and of other mining properties at 40 per cent. for the same period. The minimum rate in respect of any portion of land is fixed at 2s. 6d. Another important feature of the Act is that when the council imposes a rate of

1d. in the £ on the unimproved capital value, the operation of the Land Tax is suspended. The properties exempt from taxation are:—Commons, public reserves and parks, cemeteries, public hospitals, benevolent institutions, churches and other buildings used exclusively for public worship, free public libraries, and unoccupied Crown lands.

Amending bills were introduced at various times, notably in 1894 and 1901; but in 1906 a very comprehensive measure, the Local Government Extension Act, was passed by Parliament.

The first important provision of the 1906 Act is that for the establishment of cities. The Governor may proclaim as a city, any municipality which has had, during the preceding five years, a population exceeding 20,000 persons and a revenue of £20,000, and is an independent centre of population. During the year 1907 the Municipality of Broken Hill was proclaimed a city, in accordance with the Act.

It is also enacted that all municipalities not receiving statutory endowment under the existing Act, if found on investigation to be in necessitous circumstances, shall be entitled to a sum not exceeding 3s. 4d. in the £ on the general rate collected; but if the revenues are sufficient to meet the reasonable requirements under proper management of the corporations, endowment will not be paid. When, however, the estimated responsibility for expenditure transferred with the Land Tax exceeds the amount of the suspended tax, the amount of 3s. 4d. in the £ may be increased, but the endowment must not be greater than the excess of expenditure aforesaid.

The rates are levied on the unimproved value, at an amount to be fixed per £, which must be not less than 1d., but if this rate is more than sufficient to meet the requirements of the municipality it may be reduced. A council which has levied the general rate of 1d. on the unimproved value may impose such additional rate as may be required either on the improved or unimproved value. Special, local, and loan rates may also be imposed on the improved or unimproved value at the option of the council. The conditions as to ratable value are similar to those of the Local Government (Shires) Act, and electors are enrolled on the same franchise as exists under that Act.

Other important provisions are the power to borrow up to 10 per cent. of the unimproved value, such loans to be guaranteed by the Government; redistribution and reconstruction of existing areas, so that the municipalities may form portions of shires; acquisition of land and works; control of cattle-slaughtering and public health; dealing with noxious animals and plants; safety of the public; regulation of hoardings and other structures. The Governor may proclaim any park, road, bridge, or other public work to be a national work which will be maintained by the State, but which may be handed over to the council at any time. Auditors are appointed, not elected, and Government examiners inspect the accounts.

LOCAL GOVERNMENT ACT, 1906.

The Local Government Act, 1906, deals fully with both shires and municipalities, and came into operation on 1st January, 1907, as regards shires, and on 1st January, 1908, as regards municipalities. It repeals the Local Government (Shires) Act, 1905, and the Local Government Extension Act, 1906, and consolidates their provisions. Under an amending Act passed at the end of 1908, councils must cause a valuation of all ratable land to be made at least once in every three years, provided that they may adopt for any period the whole or any part of the valuations in force at the close of the preceding period.

Before the Local Government Act of 1906 came into operation, a very small portion of the State had been incorporated, as will be seen in the statement below, which gives the area incorporated and unincorporated in 1906 in the three great land divisions of the State:—

Division.	Incorporated.	Unincorporated.	Total.
	sq. miles.	sq. miles.	sq. miles.
Eastern	1,977	93,742	95,719
Central	571	88,579	89,150
Western	232	125,216	125,498
Total	2,830	307,537	310,367

The area incorporated in the Western Division included 41 square miles, the area of the Municipality of Silverton, which is now defunct.

On the 31st December, 1910, the area incorporated, excluding Lord Howe Island, was as follows, the only part of the State unincorporated being that portion of the Western Division not included in municipalities. The population in the different groups is also given:—

	Area (sq. miles).	Population.
In Metropolitan Municipalities... ..	149	605,900
In Country Municipalities	2,848	456,230
In Shires	182,113	564,660
Total (incorporated)... ..	185,110	1,626,840
Western Division (portion unincorporated)	125,257	18,504
Total	310,367	1,645,344

INCORPORATION OF THE CITY OF SYDNEY.

The City of Sydney was incorporated on the 20th July, 1842, under the Sydney Municipal Council, the election of aldermen taking place on the 9th November. Mr. John Hosking was the first Mayor. The city was originally divided into six wards, but at a subsequent adjustment the number was increased to eight.

After a few years, great dissatisfaction arose in the minds of the citizens as to the manner in which the affairs of the Corporation were conducted. A Select Committee of the Legislative Council was appointed in 1849 to inquire into the matter, and reported in favour of the abolition of the Municipal Council, with a recommendation that its powers should be vested in three Commissioners. This was not carried into effect until 1853, when the Corporation was dissolved, and its authority was transferred to a Commission of three persons, who administered the affairs of the city from the beginning of 1854 to the end of 1857, when a new Council, under the original conditions, came into existence. Mr. George Thornton was the first Mayor under the changed order of things, and there were sixteen aldermen—two for each ward. By the Sydney Corporation Act of 1879 the number of aldermen was increased to twenty-four, being three representatives for each ward.

Towards the close of 1900 an Amending Act was passed, dividing the city into twelve wards, each returning two aldermen. The innovation of retiring the whole of the aldermen simultaneously was introduced by a provision for the election of a new Council on the 1st December in every second year, re-election of qualified persons being permitted. A candidate is debarred from expending more than £50 in his endeavour to obtain a seat in the Council. The penalty for exceeding that amount is a fine of £20; and, in the case of an elected candidate, the election is to become

void. Another change brought about by the Act is the enfranchisement of sub-tenants and lodgers. Power is given also to the Council to resume land required for opening or enlarging streets and other public places.

The Sydney Corporation Act of 1902 consolidated the statutes previously passed relating to the City of Sydney.

In 1905 a further amending Act was passed to provide for the better government of the city, especially with regard to the control of hoardings, the proper cleansing of footways, the prevention or regulation of the smoke nuisance from furnaces and chimneys, the regulation and control of refreshment stalls and stands, the control of juvenile hawkers and shoeblacks, and the prevention of betting in public places. The tenure of office of the aldermen was altered to three years. The City Council consists now of twenty-six aldermen, elected at the end of every third year by the citizens on a broad franchise. There are thirteen wards, each returning two representatives to the Council. The whole Council, as at present constituted, retires on 30th November, 1912. The Lord Mayor is elected by and from the aldermen, and is allowed £1,000 per annum towards the expenses of his office.

The Act also regulates the election of the city members of the Metropolitan Board of Water Supply and Sewerage, and the Fire Brigades Board, and extends the power of the Council as regards resumptions, in order to provide workmen's dwellings, and further provision is made for the extension of the city boundaries.

In 1908 an Amending Act was passed, containing several important provisions. Commencing with the year 1909, the Council must levy a rate, not less than one penny in the £, upon the unimproved capital value, which rate is to be in addition to any rate under the Act of 1902. It is provided, however, that the total amount leviable shall not exceed the amount which would be yielded by a rate of three pence in the £ on the unimproved capital value, and two shillings in the £ on the average annual value, taken together, of all ratable property. On the Council imposing such rate on the unimproved capital value, the land tax is suspended. The valuation of the unimproved capital value is to be made at least once in every five years. The Municipality of Camperdown was amalgamated with the City of Sydney as from the 1st January, 1909. The Council was empowered to establish public libraries and milk depôts, to control certain parks, and to widen certain streets. Belmore Markets, the Lending Branch of the Public Library, and various parks and public ways were vested in the Council by the Government under certain conditions.

MUNICIPALITIES.

The Sydney Corporation Act of 1902 directs that improved property within the city shall be assessed at a fair average annual value, with an allowance for outgoings not exceeding 10 per cent., and the unimproved property at a maximum of 6 per cent. on its capital value; and on the value of such assessment a city rate not exceeding 2s. in the £ may be levied, exclusive of lighting. The rate stood at 16d. from 1891 to 1899, but was increased to 18d. for 1900, and 24d. for 1901. In 1902, it was reduced to 22d., and still further reduced to 21d. in 1903, which was also levied from 1904 to 1910. The Act provides for a special local rate not exceeding 6d. in the £ of annual value, for any work which may be for the particular benefit of one locality, but then only if two-thirds of the ratepayers of such locality petition for the same. Occasional advantage of this power has been taken for street-watering, though not of late years, and the amount now levied covers the expenses of street-lighting and street-watering.

The other Councils were formerly empowered to raise revenue by rates not exceeding 1s. in the £ for ordinary purposes and the same amount for special purposes, with 6d. in addition for street-watering. The amount of each rate was calculated upon nine-tenths of the fair average annual rental of all buildings and cultivated lands, or lands let for pastoral, mining, or other purposes, and upon 5 per cent. of the capital value of the fee-simple of all unimproved lands.

Municipalities which avail themselves of the provisions of the Country Towns Water and Sewerage Act of 1880 are empowered to levy a rate for each service not exceeding a maximum of 10 per cent. on the assessed annual value of land and tenements, in addition to the ordinary municipal rates. Under the Local Government Act, however, a water rate equivalent to this maximum of 10 per cent. on the assessed annual value must be levied either on the unimproved or the improved capital value of lands within the reticulated area.

On the 30th June, 1911, there were forty-seven municipalities with waterworks constructed under the provisions of the Act, and ten with sewerage works, but the water-works at Manly, Richmond, and Wollongong were subsequently transferred to the control of the Metropolitan Board of Water Supply and Sewerage.

In order to aid municipalities in providing for the expenditure in their formative stages, the original Act provided for endowment by the State during a period of fifteen years. In each of the first five years after incorporation, every municipality is entitled to a sum equal to the whole amount actually raised by rates or assessments; in each of the next succeeding five years, a sum equal to one-half; and in each of the next succeeding five years, a sum equal to one-fourth of the amount so received. After the expiry of these fifteen years, such assistance ceases, and further aid from the State must be obtained by special grant. At the end of 1910 there were eleven municipalities entitled to statutory endowment.

VALUATIONS.

It has already been explained that under the Local Government Act of 1906 the basis of rating was changed. The valuations for 1908, 1909, and 1910, therefore, cannot be compared with those for previous years, and the following table relates to the ten years ended 1907, the last under the Municipalities Act. It will be observed that, with the exception of the annual value of ratable property in the country districts, both the annual and capital values increased each year.

Year.	Sydney and Suburbs.		Country Municipalities.		Total.	
	Annual Value.	Capital Value.	Annual Value.	Capital Value.	Annual Value.	Capital Value.
	£	£	£	£	£	£
1898	4,992,860	87,232,900	2,413,950	33,698,000	7,406,810	120,930,900
1899	5,005,300	87,495,300	2,416,900	33,749,800	7,422,200	121,245,100
1900	5,060,500	88,348,700	2,836,130	36,429,600	7,896,630	124,778,300
1901	5,165,030	89,587,100	2,920,500	37,936,300	8,085,530	127,523,400
1902	5,384,020	91,988,200	2,624,890	36,606,500	8,008,910	128,594,700
1903	5,617,640	96,132,300	2,681,750	38,046,700	8,299,390	134,179,000
1904	5,850,840	98,803,300	2,675,200	38,355,800	8,526,040	137,159,100
1905	5,969,940	100,434,200	2,741,390	39,223,700	8,711,330	139,657,900
1906	6,071,480	101,833,800	2,770,620	39,417,000	8,842,100	141,250,800
1907	6,310,420	103,328,200	2,961,570	41,668,300	9,271,990	144,996,500

The increase between 1898 and 1907 was considerable, the annual value having risen from £7,407,000 to £9,272,000, and the capital value from £120,931,000 to £144,996,500. Part of this increase was due to an

additional number of districts incorporated, the area having increased from 1,769,000 to 1,920,000 acres; but when allowance is made for these it will still be found that the capital value increased to a large extent.

Property in the City of Sydney was in 1910 still rated on the basis of the annual rental value. The following is a comparison of the capital and annual values during the three years 1908-1910:—

	1908.	1909.	1910.
	£	£	£
Unimproved capital value	20,207,812	19,970,365	19,952,793
Improved capital value	49,060,600	50,948,240	52,142,200
Assessed annual value... ..	2,249,760	2,292,671	2,346,399

VALUATIONS AND RATING UNDER 1906 ACT.

Since the 1st January, 1908, under the Local Government Act of 1906, municipalities have been obliged to levy a general rate on the unimproved capital value of all ratable land, and may levy additional, general, special, local, or loan rates on either the unimproved or the improved capital value. Municipal rates are no longer charged on the annual value; the only rates based on that value are those charged by the Metropolitan and Hunter District Water Supply and Sewerage Boards.

The unimproved capital value of land is the amount for which the fee-simple estate in such land could be sold under such reasonable conditions as a *bonâ-fide* seller would require, assuming that the actual improvements had not been made.

The improved capital value is the amount for which the fee-simple estate of the land, with all improvements and buildings thereon, could be sold.

The general rate must be not less than 1d. in the £ on the unimproved capital value of all ratable land, and the total amount to be derived from the general rate and additional rates taken together must not exceed the amount yielded by a rate of 2d. in the £ on the unimproved value and 2s. in the £ on the assessed annual value of all ratable land. In 1910 very few municipalities levied additional general rates, nearly all confining themselves to one general rate. The variation in the rates is rather remarkable. In the suburbs of Sydney they ranged in 1910 from 2d. to 5d. in the £, and in the country from 1d. to 7d. The number of municipalities levying the rates specified below was as follows, distinguishing suburban from country, and showing the unimproved capital value of the land in each class:—

General Rate Levied.	Number of Municipalities.		Unimproved Capital Value of Land.	
	Suburbs.	Country.	Suburbs.	Country.
1d. and under 2d.... ..	Nil.	32	£ Nil.	£ 3,769,576
2d. „ 3d.... ..	9	38	6,861,946	7,877,010
3d. „ 4d.... ..	15	37	8,309,564	4,406,363
4d. „ 5d.... ..	14	27	7,544,026	1,868,852
5d. „ 6d.... ..	2	9	1,107,862	863,091
6d. and over	Nil.	6	.....	968,239
Total	40	149	23,823,398	19,753,131

The majority of councils in both divisions levied rates between 3d. and 4d.; the next in number were between 2d. and 3d., and the next between 4d. and 5d. The municipalities which levied 6d. and over in the £ were Aberdeen, Bourke, Hillgrove, Wallsend, and Wrightville each 6d. and Broken Hill 7d. None of the suburban councils levied 1d. in the £; but this rate was imposed in sixteen country municipalities

As regards other than general rates, four municipalities levied additional general rates on the unimproved capital value, viz., Redfern, $\frac{1}{8}$ d.; Albury, $\frac{1}{4}$ d.; Hay, $3\frac{1}{2}$ d.; and Narromine, 4d.; and sixteen on the improved capital value, ranging from $\frac{1}{4}$ d. to $1\frac{1}{2}$ d. in the £.

Sixty-seven municipalities levied special and local rates on the unimproved capital value, ranging from $\frac{1}{8}$ d. to 12d. in the £, and twenty-one on the improved capital value, ranging from $\frac{1}{2}$ d. to 9·64d. in the £.

Seventeen municipalities levied loan rates on the unimproved capital value, ranging from $\frac{1}{8}$ d. to $1\frac{3}{4}$ d. in the £, and four on the improved capital value, ranging from $\frac{1}{4}$ d. to $\frac{3}{4}$ d.

The rates levied amounted to £669,478, of which £568,982 were general and additional general rates.

It was generally supposed that, under the new system of rating, the unimproved values would be increased, and the figures for 1908, which showed that the unimproved values of land advanced more than one-third in the country and over one-fifth in the city, largely confirmed this opinion.

The following table, in which the unimproved values and improved values for 1909 and 1910 are compared, shows a further increase in unimproved values in 1910 :—

Division.	Unimproved Value.		Improved Value.		
	1909.	1910.	1909.	1910.	Increase.
	£	£	£	£	per cent.
Sydney—City ...	19,970,365	19,952,793	50,948,240	52,142,200	2·3
Suburbs ...	23,486,535	23,823,398	57,172,187	59,175,874	3·5
Metropolis...	43,456,900	43,776,191	108,120,427	111,318,074	3·0
Country ...	19,798,286	19,753,131	44,716,888	45,824,999	2·5
Total ...	63,255,186	63,529,322	152,837,315	157,143,073	2·8

The particulars in respect of unimproved values in 1909 are somewhat misleading, and the decrease in the country districts is probably due to the fact that in certain cases the town clerks furnished returns showing ratings before appeal in the previous year. The figures for 1910, on the other hand, represent the values generally as reduced after appeal.

The difference between the unimproved and improved capital values is, of course, the value of improvements, and the following statement shows that in both the suburbs and country the value of improvements has increased :—

Division.	Value of Improvements.		
	1909.	1910.	Increase.
	£	£	per cent.
Sydney—City ...	30,977,875	32,189,407	3·9
Suburbs ...	33,686,652	35,352,476	4·9
Metropolis ...	64,663,527	67,541,883	4·4
Country ...	24,918,602	26,071,568	4·6
Total ...	89,582,129	93,613,751	4·5

The steady increase in the value of improvements may be taken as indicative of municipal prosperity, taken together with existing industrial conditions. Of late years, particularly in the city, there has been an increasingly marked activity in the building trade; old buildings have been demolished and have been replaced by more extensive structures, made still more valuable by reason of the increased cost of labour and materials.

The unimproved capital value of ratable land in municipalities is £63,529,000, and in shires £89,936,000, the total of the two being £153,465,000. If to this be added £10,000,000, the estimated unimproved value of unincorporated land in the Western Division, the unimproved value of the land of the State, excluding a small area exempt from taxation, is £163,465,000. The value placed upon land in the Western Division is 2s. 6d. per acre, which is over 25 per cent. lower than in the shire in the west of the Eastern Division with the lowest value per acre, and cannot be considered high.

The value of improvements in municipalities was £93,613,000, or 147 per cent. of the unimproved value. In the suburbs it was 149 per cent., and in the country 132 per cent. The value of improvements is not available for all the shires, but assuming that it is the same proportion of the unimproved value as the average in those which are known, namely, about equal to the unimproved value, a value of, say, £90,000,000 is obtained. In the Western Division it may be placed at £10,000,000, so that for the whole State the following values are obtained:—

Division.	Unimproved Value of Land.			Value of Improvements.		
	Total.	Per Head.	Per Acre.	Total.	Per Head.	Per Acre.
	£	£	£ s. d.	£	£	£ s. d.
Sydney—City ...	19,953,000	177	5,997 5 11	32,189,000	285	9,675 1 8
Suburbs ...	23,823,000	47	259 2 9	35,352,000	70	384 10 11
Metropolis ...	43,776,000	70	459 8 10	67,541,000	109	709 0 6
Country Municipalities	19,753,000	47	10 7 4	26,072,000	62	14 6 1
Shires ...	89,936,000	155	0 15 5	90,000,000	155	0 15 5
Western Division (part unincorporated).	10,000,000	560	0 2 6	10,000,000	560	0 2 6
State ...	163,465,000	100	0 16 6	193,613,000	118	0 19 6

FINANCES.

The Local Government Act of 1906 prescribes that there must be a general fund in each local governing area (municipality or shire), to which must be paid the proceeds of all general and additional general rates, any moneys received by way of grant, endowment, &c., from the Government, and other income not required by law to be carried to other funds. The expenditure from the fund must be on administration, health, roads, and other public services.

In addition, in each local area there must be a special fund for each special rate levied, and for each work or service carried on by the council in respect of which the special rate has been made, and the fund may be applied only for the purposes of such work or service. A special rate is levied for a special purpose, and applies to the whole area. Likewise a local fund must be kept for each local rate levied, with similar restrictions to those in the case of special funds. A local rate is levied for a local purpose, and applies only to that portion of the area which is benefited. The expenditure of the local fund is restricted to work within or for the sole benefit of that portion of the area.

Where any borrowed money is owing by a council a separate loan fund must be kept in respect of each work or service on which the loan is owing. Except where a Loan Fund has its own revenue as from rates, the obligations attendant thereon, such as provision for the repayment of principal and interest, may be met by transfers from the General Fund or other appropriate fund. The object of the loan, as a rule, determines the source from which the Loan Fund shall obtain its necessary revenue. When the loans have been raised for general purposes, transfers are made from the General Fund, and the profits of trading concerns provide for the disbursements of their corresponding loan funds.

The revenue of special and local funds may be used in a similar manner; for example—Street Lighting Special Fund must provide the money to meet not only the ordinary cost of maintaining the street lighting for the year, but also the obligations of the Street Lighting Loan Fund; and similarly with Sewerage, Water Supply, and other Special and Loan Funds.

The above has reference more particularly to those Loan Funds which must be kept in respect of loans, which were raised before the new Act came into operation, that is to say,—loans raised when the law did not require (as it does now) a loan-rate to be levied to pay interest and provide for the extinction within a fixed period of each loan raised. It is apparent, therefore, that all new loans will be self-supporting, quite apart from the question whether the loan undertakings are profitable or not. In these latter cases the councils may either use profits to swell the amount which is being provided to repay, or retain them in the working accounts of the undertakings (that is, in the Special, Local, or Trading Funds, as the case may be).

The Regulations under the Act prescribe the system of accounts to be kept. The accounts must be "Income and Expenditure Accounts," kept by double entry, and each "Fund" must have a separate banking account. Thus there is shown for each General, Special, Local, Loan or Trading Fund of each area concerned, a "Revenue Account" (or Profit and Loss Account), giving the total expenditure chargeable for the period (whether paid or unpaid), and the total income for the same period (whether received or outstanding). A balance-sheet is also shown for each Fund with appropriate liabilities and assets. Only "realisable" assets are allowed to be included, so that the whole of the roads, bridges, drains, and much other constructive work, which are taken to account elsewhere as assets, are here excluded.

The Council of the City of Sydney conducts its affairs under the City Corporation Act, and therefore is not bound by the provisions of the Local Government Act, which is of a later date. With the exception of the Electric Lighting Fund, the various accounts of the city are kept on a "cash" basis, and apart from the fact that those accounts show receipts and disbursements in respect of both capital and revenue, the information cannot in many instances be allocated to the headings of expenditure and income as set out in the system of accounts prescribed under the Local Government regulations. It is obvious, therefore, that when discussing the financial transactions of the whole municipal area of the State an endeavour to collate similar information from two entirely different systems of accounts would serve no useful purpose, and the figures for statistical comparison would be of doubtful value.

For the reasons stated above, the following particulars relating to municipal accounts are divided into two parts, one dealing with the City of Sydney and the other with the suburbs of Sydney and country municipalities.

CITY OF SYDNEY—RECEIPTS.

The receipts from the various funds, exclusive of the Electric Lighting Fund, in 1910 amounted to £412,069, the City Fund contributing £359,694, the Public Markets Fund £33,807, and the Cattle Saleyards Fund £18,568.

The total disbursements exceeded the receipts by £25,581. Although abstracts of receipts and disbursements in respect of the Public Markets and the Cattle Saleyards Funds are shown in the city accounts, those funds are really subsidiary to the City Fund, their balances at the end of the year being transferred and shown as adjustments in that fund.

The following is a statement of the receipts of the City Fund under appropriate headings:—

	£
General Purposes	291,957
Works	12,185
Health Administration	9,760
Public Services... ..	6,563
Municipal Property	28,811
Miscellaneous	10,418
Total	£359,694

Rates, £206,461, together with Land Tax, £83,569, form by far the greater part of the receipts under the heading "General Purposes." As provided by the amending Act of 1908, rating on the unimproved value of land was first brought into force in 1909, and that such a large amount should be realised with the minimum rating of 1d. in the £ shows the importance to be attached to the acquisition of the transferred Land Tax as an addition to the city finances. The revenue from city improvements amounted to £5,578, or 46 per cent. of the total from works; resummptions were responsible for £17,556, or nearly two-thirds of the receipts from municipal property.

DISBURSEMENTS.

The disbursements of the City Fund in 1910 amounted to £385,947, of the Public Markets Fund £43,557, and of the Cattle Saleyards Fund £8,146, making a total of £437,650. Shown under the same headings as the receipts, the following were the disbursements of the City Fund:—

	£
General Purposes	35,072
Works	59,369
Health Administration	75,830
Public Services... ..	60,579
Municipal Property	26,018
Miscellaneous (Interest, Sinking Fund, &c.)	129,079
Total	£385,947

Salaries, which amounted to £26,540, absorbed a very large share of the expenses for General Purposes. Out of the sum spent on Public Works, Health Administration, and Public Services, streets, footpaths, &c., claimed £49,567, city cleansing cost £52,155, and street lighting £21,837. The large amount shown under "Miscellaneous" includes the Annual Debenture indebtedness, which in 1910 was £63,506 for interest, commission, &c., and £18,703 from Sinking Fund contributions.

With the transfer of the Land Tax, the amending Act of 1908 provided that the City Council should take over the control or bear the expenditure contingent to certain works and services hitherto a charge on the Government. As a result of this enactment the following items appear as disbursements in 1910:—Pymont Bridge, £7,300; Medical Officer of Health, £1,600; Traffic Regulation, £7,500; and Domain Lighting, £1,294. The first three items mentioned are annual statutory payments to the Crown, as the works and services concerned are still under Government control.

The receipts and disbursements of the Public Markets Fund, as stated, were £33,807 and £43,557 respectively, showing a deficit of £9,750 on the year's transactions. Although the Queen Victoria Markets brought in revenue to the extent of £17,488, or over 50 per cent. of the total, that amount was insufficient to meet even the interest charges on Capital Expenditure and Sinking Fund contributions, which together amounted to £18,470. The total outlay was £25,797, or £8,309 in excess of the receipts.

The following statement shows the net result of the transactions of the year in respect of each source of revenue included in the fund:—

Balances transferred to City Fund.

	Dr.	£	£
Fish Markets ... ..	...	2,113	
Cooling Chambers ... ..	...	254	
Queen Victoria Markets ... ..	...	8,309	
Belmore (Old) ... ..	...	400	
Municipal, No. 2 ... ..	...	306	
Fish Agency Account... ..	...	114	
			11,496
	Cr.		
Belmore (New)... ..	...	1,668	
Municipal, No. 1 ... ..	...	78	
			1,746

Net Deficit £9,750

The Council expended £8,146 on the Cattle Saleyards during the year, and received in return revenue amounting to £18,568, leaving a credit balance of £10,422 to be transferred to the City Fund.

The next item to be considered is the accounts of the Electric Lighting Fund, which, as has already been stated, unlike the other funds of the city, is kept on the double-entry system.

The following is the Revenue Account:—

Expenditure.		Income.	
	£		£
Generation of Electricity	36,060	Private Lighting	81,499
Distribution	21,207	Public Lighting	17,672
Management	7,211	Power Supply	37,307
Special Charges	23,833	Rentals—Meters, Motors, Lamps, &c.	7,923
Bad debts written off	87	Net Revenue—Company Purchases	21,313
Total	£88,498	Miscellaneous	333
Balance carried to Net Revenue Account	77,549	Total	£166,047
Total	£166,047		

Generation forms the largest item of expenditure, accounting for 40·7 per cent. of the whole. Distribution cost 24·1, and management 8·1 per cent. The special charges were monthly payments on account of transferred customers to companies whose works were purchased by the City Council. They are, however, a gross expenditure only, as after expenses of management, &c., have been deducted the municipality is credited with the balance, amounting to £21,313, as shown on the income side of the account.

The sales of current to the public for light and power, including £38,193 to transferred customers of company purchases, amounted to £118,553, and the sales to the Council realised £17,925.

The principal charges, out of a total of £51,185 against the gross profit of £77,549 carried to the Net Reserve Account, were:—Interest on Debentures, £22,899; Interest on Balances—Company purchases, £4,864; Sinking Fund contribution, £6,999; and Depreciation Reserve Account, Loan flotation expenses, &c., £18,075. It will be seen from the foregoing that the net gain for the year was £24,712, which, added to the net profit from 1909, viz., £1,652, gives a total of £26,364 credited to profit and loss at the end of 1910.

Below is a summary of the balance-sheet of the Electric Lighting Fund on 31st December, 1910:—

Liabilities.		Assets.	
	£		£
Debenture Loans...	750,000	Capital Expenditure — Land,	
Company Purchases—Balance of		Buildings, Machinery, Plant,	
Purchase Money	57,531	&c.	749,297
Sinking Fund	28,295	Goodwills—Company Purchases	100,375
Reserve and Suspense Accounts	73,335	New South Wales Treasury—	
Sundry Creditors...	22,033	Sinking Fund Investments	28,295
Miscellaneous	810	Bank Balance	60,951
Balance—Net Revenue Account	26,364	Other	19,450
	£958,368		£958,368

The Loan Capital, which forms more than three-fourths of the liabilities, returned only 3·3 per cent. profit for the year; but consideration of the fact that the interest payments and Sinking Fund contribution for the year amounted to £34,762, that £17,774 was allowed for depreciation, and that the Sinking Fund is represented by an investment of £28,295 in Government Stock, will show that the finances of the Sydney Electric Lighting Fund are in a healthy condition.

The following is a summary of liabilities and assets of all funds of the City of Sydney.

Liabilities.		Assets.	
	£		£
Debentures current	3,229,400	Bank Balances, Cr.	179,748
Bank Balances, Dr.	322,732	Rates Outstanding	7,573
Sundry Creditors	37,873	Landed Properties, Baths, and	
Debenture Interest Account, Ser-		Sundries	2,994,847
vices payable, and Sundries	204,058	Machinery, Plant, Furniture,	
		Stores, &c.	730,754
		Sundry Debtors	68,545
		Sinking Funds	259,061
		Investments	77,500
	£3,794,063		£4,318,028

Notwithstanding the large Loan indebtedness the assets exceed the liabilities by £523,965. It should be noted that the Debentures include £750,000 borrowed in connection with Electric Lighting, and £450,000 for Public Markets, and that as the proceeds of such loans have been spent on reproductive municipal works, such works should provide the annual interest charges and sinking fund contributions. It follows that "rate" revenue is relieved to the extent that annual liabilities of this nature are so liquidated. It is true that the Electric Lighting Fund is quite self-supporting; but, then again, the loss on Queen Victoria Markets, which, as already stated above, was in 1910 £8,309, becomes a charge on the city rates. Landed properties, baths, &c., which comprise about 70 per cent. of the assets, include such large items as "Public Markets, £991,878," "Town Hall, £537,897," "Resumptions, £828,654," "Electric Light Buildings, Works, &c., £183,332," and "Cattle Saleyards, £95,000." The accumulated "Sinking Fund, £259,061," as against a Debenture debt of £3,231,900, must be regarded as a satisfactory cover.

PROGRESS OF SYDNEY.

The following table is appended for the purpose of showing the progress of the city during the last four years:—

Particulars.	1907.	1908.	1909.	1910.
Area Acres	2,892	2,892	3,327	3,327
Population No.	112,000	112,900	120,660	119,800
Unimproved Capital Value £	20,207,812	20,207,812	19,970,365	19,952,793
Improved Capital Value ... £	45,749,800	49,060,600	50,948,240	52,142,200
Assessed Annual Value ... £	2,090,736	2,249,760	2,292,671	2,346,399
City Fund—				
Receipts—Rates £	193,053	194,627	202,272	206,461
Land Tax ... .. £	...	...	78,723	83,569
All other sources £	45,033	107,325	79,179	69,664
Total £	238,086	301,952	360,174	359,694
Disbursements £	229,335	317,740	333,062	385,947
Public Markets Fund—				
Receipts £	30,074	29,579	30,383	33,807
Disbursements £	34,211	33,638	34,048	43,557
Cattle Saleyards Fund—				
Receipts £	11,716	15,007	26,666	18,568
Disbursements £	4,992	6,493	16,619	8,146
Electricity Works Fund—				
Expenditure £	57,625	89,430	111,498	141,335
Income £	65,868	93,600	128,980	166,047
Liabilities—All Funds £	2,028,764	2,408,062	2,994,579	3,794,063
Assets—All Funds £	2,324,902	2,622,898	3,677,159	4,318,028
Loans outstanding 31st Dec. £	1,880,000	2,105,000	2,679,000	3,231,900
Sinking Fund £	167,061	191,070	220,621	259,061

The increase in area in 1909 is due to the inclusion of Camperdown as a ward of the city, and for the same reason an increased population appears in that year.

The tendency of a city population as opposed to a city and suburban population is to decrease rather than increase. Three important factors have combined to make this particularly applicable to Sydney—private enterprise shown by the building of extensive premises designed almost entirely for business purposes, improved facilities for reaching suburban areas by quicker and cheaper means of transport, and perhaps the most important, the council's policy of city improvement by demolishing "slums" and opening up new streets, which must force the population outwards.

The steady progression in the city finances indicated in the above statement is marred by the figures relating to the Public Markets Fund, which shows a loss on each year's transactions, attributable almost wholly to the Queen Victoria Markets, imposing as they do an annual incubus of about £8,000 on the city rates.

Each year's returns emphasise the rapid and at the same time profitable expansion of the electric lighting undertaking.

The lights were used for the first time on 8th July, 1904, when parts of the city were illuminated. Since that date great progress has been made, and the public parks as well as the remainder of the streets under the control of the council are now included.

The cattle saleyards form another productive asset, the transactions showing each year an increasing surplus.

Although additions are continually being made to the loans current it will be seen by a glance at the above figures that the sinking fund obligations have been strictly fulfilled.

SUBURBS OF SYDNEY AND COUNTRY MUNICIPALITIES.

As already stated, with 1908 a new era began in the municipal book-keeping of this State, and for the same reason that the accounts of the City of Sydney cannot be included with those of municipalities working under the provisions of the Local Government Act, the transactions of the latter for the years 1909 and 1910 cannot, with any advantage, be compared with those of earlier years when the accounts were kept on a "cash basis." The figures in the accompanying tables therefore relate to 1909 and 1910 only.

The value of the statistical information disclosed is somewhat discounted by the exclusion of particulars in respect of Balranald and Broken Hill in 1909, and the figures relating to Broken Hill and Narrabri for 1910, the municipalities in question having neglected to furnish the prescribed returns up to the time of going to press.

EXPENDITURE.

The total expenditure during 1910 by the various municipalities under the Local Government Act amounted to £1,028,351, which was £4,084 less than the income. The following statement shows the expenditure allocated to the various funds for 1909 and 1910:—

Funds.	1909.			1910.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
	£	£	£	£	£	£
General Fund ...	416,211	311,426	727,637	425,185	322,518	747,703
Trading Accounts ...	6,327	72,201	78,528	7,894	84,552	92,446
Special and Local Funds	17,896	137,994	155,890	31,058	170,939	201,997
Loan Funds ...	35,999	31,486	67,485	37,802	43,063	80,865
Gross Expenditure ...	476,433	553,107	1,029,540	501,939	621,072	1,123,011
Deduct Transfers...	49,893	98,043	147,936	47,061	47,599	94,660
Net expenditure ...	426,540	455,064	881,604	454,878	573,473	1,028,351

The greatest expenditure was naturally from the General Fund, which accounted for 67 per cent. of the whole, as against 71 per cent. in 1909.

The trading concerns of the municipalities are gas and electricity; the special and local funds relate to water supply, sewerage, street-watering, street-lighting, old loans interest, and a few other miscellaneous matters.

A review of the figures in the preceding table shows a substantial increase in the expenditure of each fund for 1910 over 1909, indicating an increased activity in the management of municipal affairs. This policy of expansion augurs well for the future of the municipalities of the State, particularly if warranted by a corresponding increase of income, and without unduly burdening the ratepayers.

Details of the expenditure from the General Fund are shown below:—

	1909.			1910.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
	£	£	£	£	£	£
Administrative expenses..	42,118	52,108	94,226	45,301	52,871	98,172
Public Works	209,811	132,823	342,634	230,674	162,402	393,076
Health Administration ...	41,802	26,223	68,025	49,355	25,371	74,726
Public Services	66,995	25,959	92,954	73,037	32,801	105,838
Municipal Property	10,981	11,317	22,298	13,797	21,418	35,215
Transfers	41,771	57,922	99,693	9,067	16,237	25,304
Other	2,733	5,074	7,807	3,954	11,418	15,372
Total expenditure ...	416,211	311,426	727,637	425,185	322,518	747,703

An amendment of the Local Government Act in 1908 provided that, except when exemption had been granted by the Governor, the cost of night-soil and garbage removal must not be paid out of the General Fund but out of a Special Fund, and the cost of lighting streets and roads must also be defrayed from a Special Fund. When, however, the whole area of a municipality is within 20 miles of the Sydney Post Office, or when the whole area of a municipality is benefited by the expenditure on street lighting, the council may, in its discretion, pay such cost out of the General Fund.

The effect of this enactment is reflected clearly in the above figures, showing as they do a greatly increased expenditure on Health Administration and Public Services. The cost of street lighting in the suburbs is still met out of the General Fund, and the expenditure on Public Services is not therefore affected by the amendment.

The proportion of expenditure under each head to the total expenditure was as follows:—

	1909.			1910.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Administrative Expenses ...	10·2	16·7	12·9	10·7	16·4	13·1
Public Works	50·2	42·7	47·0	54·3	50·4	52·6
Health Administration ...	10·1	8·4	9·3	11·6	7·9	9·9
Public Services	16·1	8·3	12·7	17·1	10·2	14·1
Municipal Property	2·6	3·7	3·0	3·3	6·6	4·8
Transfers to Loan Funds ...	10·1	18·6	13·7	2·1	5·0	3·4
Other	7	1·6	1·4	0·9	3·5	2·1
Total	100·0	100·0	100·0	100·0	100·0	100·0

Of the expenditure by municipalities, 13·1 per cent. was on administrative expenses, and 52·6 per cent. on public works. Of the administrative expenses, salaries were the largest. The relative cost of administration in the country is high, being 16·4 per cent. of the total expenditure; the suburban municipalities spend only 10·7 per cent. under the

same heading. The significance of the foregoing remarks, showing the effect of the amended Act on certain items of expenditure, may be more readily understood by glancing at the relative cost of these items as set out in the above table. The high relative cost of administration in the country is due, no doubt, to the sparse population and small revenue of many of the country municipalities. In such cases, the expenses on account of salaries, &c., would naturally be larger proportionately than in the more closely-settled localities in the suburbs. Public Services for 1910 include—Pounds, £754; street-watering, £6,848; street-lighting, £62,748; and all other services, £35,488. The greatest part of the expenditure on Public Works was on roads, streets, &c., as will be seen below :—

Services.	1909.			1910.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
	£	£	£	£	£	£
Roads, streets, culverts, &c....	200,720	120,592	321,312	219,636	150,190	369,826
Bridges	1,276	6,358	7,634	780	4,960	5,740
Drains, sewers, &c.	4,731	3,206	7,937	6,257	3,729	9,986
Ferries, wharfs, and jetties	1,802	1,590	3,692	1,503	1,565	3,068
Sundries	1,282	777	2,059	2,498	1,958	4,456
Total	209,811	132,823	342,634	230,674	162,402	393,076

Of the expenditure on roads, streets, &c., in 1910, the amount spent on maintenance, renewals, and repairs was £186,940; £57,344 was expended on construction, £26,864 on street and gutter cleaning, £29,740 on kerbing and guttering, £30,624 on footpaths, and £4,611 on sundries, a large part of which was absorbed by tree-planting.

The Trading Accounts, which relate to the supply of gas or electricity, will be treated later under those headings, and the special Water and Sewerage Funds will also be discussed.

INCOME.

The total income of all the municipalities brought under the provisions of the "Local Government Act of 1906," in 1910, was £1,032,435, including £33,368 received as endowments or grants from the Government. Under the same funds as in the expenditure the income for 1909 and 1910 is shown below :—

Funds.	1909.			1910.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
	£	£	£	£	£	£
General Fund	413,220	297,710	710,930	419,063	320,003	739,066
Trading Accounts	6,076	77,069	83,145	6,565	85,252	91,817
Special and Local Funds	21,168	176,704	197,872	26,261	173,639	199,900
Loan Funds	46,220	66,262	112,482	48,490	47,822	96,312
Gross Income	486,684	617,745	1,104,429	500,379	626,716	1,127,095
Deduct Transfers... ..	49,893	98,043	147,936	47,061	47,599	94,660
Net Income	436,791	519,702	956,493	453,318	579,117	1,032,435

Details of the items of the General Fund for 1909 and 1910 are as follows:—

Source of Income.	1909.			1910.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
General Purposes—	£	£	£	£	£	£
Rates levied (including interest)	338,796	220,015	558,811	349,241	224,359	573,600
Government Endowments, &c.	684	6,269	6,953	847	8,486	9,333
Sundries	6,675	6,493	13,168	8,683	6,972	15,655
Public Works, including Government Grants.	29,050	18,410	47,460	25,410	22,826	48,236
Health Administration, including Government Grants for Parks and Gardens.	16,202	12,456	28,658	16,164	11,908	28,072
Public Services, including Government Grants.	4,462	9,743	14,205	4,018	10,137	14,155
Municipal Property	11,450	20,493	31,943	10,477	25,384	35,861
Miscellaneous	5,901	3,831	9,732	4,223	9,931	14,154
Total	413,220	297,710	710,930	419,063	320,003	739,066

Comparing this statement with the expenditure of the General Fund, it will be found that the expenditure in 1910 was £8,637 in excess. Included in the rates levied is an amount of £4,618, being interest due on unpaid rates.

To the income from public works, the Government contributed £17,230 as grants for roads, streets, &c., and £632 as grants for ferries.

Under Health Administration are included Government grants for Parks, &c., amounting to £5,643. The Government also granted £530 for General Purposes and Public Services..

Stating the income under each head as a percentage of the total income of the General Fund, the following results are obtained:—

Source of Income.	1909.			1910.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
General Purposes—	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Rates levied (including interest)	82·0	73·9	78·6	83·3	70·1	77·5
Government Endowments, &c.	0·2	2·1	1·0	0·2	2·7	1·3
Sundries	1·6	2·2	1·8	2·1	2·2	2·2
Public Works, including Government Grants	7·0	6·2	6·7	6·1	7·1	6·5
Health Administration	3·9	4·2	4·0	3·9	3·7	3·8
Public Services, including Government Grants	1·1	3·2	2·0	0·9	3·2	1·9
Municipal Property	2·8	6·9	4·5	2·5	7·9	4·9
Miscellaneous	1·4	1·3	1·4	1·0	3·1	1·9
Total	100·0	100·0	100·0	100·0	100·0	100·0

The bulk of the general income was received from rates, the average for all municipalities being 77·5 per cent. In the suburbs it was 83·3 per cent., and in the country 70·1 per cent. The next important source of income was from Public Works, but it should be remembered that about 38 per cent. of its contribution was provided by the Government by way of grants. By the transfer of the Sanitary and Garbage Services from the General Fund, as provided by the 1908 Amendment of the Act,

Health Administration lost its most important factor of revenue, contributing only 3·8 per cent. of the total as against 9·8 per cent. in 1908. The difference is still more marked in the country, where the proportions are 15·5 per cent. in 1908 and 3·7 per cent. in 1910. In the suburbs, the Metropolitan Sewerage Board levies charges in addition to those made by the municipalities.

SPECIAL AND LOCAL FUNDS.

The expenditure and income of the Special and Local funds for the years 1909 and 1910 are shown in the following table:—

Funds.	1909.			1910.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
Expenditure—	£	£	£	£	£	£
Water Supply ...	.....	55,067	55,067	.....	70,462	70,462
Sewerage ...	.....	3,117	3,117	.....	5,936	5,936
Sanitary and Garbage ...	9,033	58,430	67,463	13,969	68,750	82,719
Street Lighting ...	.....	15,581	15,581	.....	17,598	17,598
Street Watering ...	2,718	347	3,065	2,667	409	3,076
Old Loans' Interest ...	6,056	1,682	7,738	8,795	1,511	10,306
Miscellaneous ...	89	3,770	3,859	5,627	6,273	11,900
Total ...	17,896	137,994	155,890	31,058	170,939	201,997
Income—						
Water Supply ...	.....	60,950	60,950	.....	66,959	66,959
Sewerage ...	.....	3,627	3,627	.....	4,920	4,920
Sanitary and Garbage ...	10,778	87,223	98,001	14,934	72,852	87,786
Street Lighting ...	.....	17,645	17,645	.....	18,170	18,170
Street Watering ...	2,151	326	2,477	2,026	331	2,357
Old Loans' Interest ...	7,792	2,003	9,795	7,673	2,209	9,882
Miscellaneous ...	447	4,930	5,377	1,628	8,198	9,826
Total ...	21,168	176,704	197,872	26,261	173,639	199,900

BALANCE SHEET.

The financial position of the municipalities, as at 31st December, 1909 and 1910, is shown by the following statement of liabilities and assets of the various funds:—

Funds.	1909.			1910.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
Liabilities—	£	£	£	£	£	£
General Fund ..	43,127	57,374	100,501	54,047	51,611	105,658
Trading Accounts ...	1,826	10,613	12,439	3,325	25,639	28,964
Special and Local Funds	1,710	830,011	831,721	9,893	1,021,291	1,031,184
Loan Funds ...	778,430	624,564	1,402,994	780,417	616,416	1,396,833
Total ...	825,093	1,522,562	2,347,655	847,682	1,714,957	2,562,639
Assets—						
General Fund ...	226,053	414,635	640,688	230,689	404,260	634,949
Trading Accounts ...	1,343	38,279	39,622	1,764	58,302	60,066
Special and Local Funds	7,367	897,941	905,308	14,303	1,086,078	1,100,381
Loan Funds ...	156,158	446,273	602,431	165,224	435,807	601,031
Total ...	390,921	1,797,128	2,188,049	411,980	1,984,447	2,396,427

Every municipality must keep a General Fund, and the liabilities consist mostly of temporary loans and overdrafts; but the assets are more than sufficient to meet them. In only three municipalities in 1909 and four in 1910 was there an excess of liabilities. The liabilities and assets of the General Fund in the various municipalities, as at 31st December, 1909 and 1910, are shown below:

	1909.			1910.		
	Suburbs of Sydney.	Country.	Total.	Suburbs of Sydney.	Country.	Total.
Liabilities—	£	£	£	£	£	£
Temporary loans	17,032	12,918	29,950	16,431	13,540	29,971
Overdrafts ... ..	.....	4,634	4,634	.....	1,059	1,059
Sundry creditors (including amounts due to other Funds)	24,506	34,696	59,202	34,240	32,053	66,293
Other	1,589	5,126	6,715	3,376	4,959	8,335
Total	43,127	57,374	100,501	54,047	51,611	105,658
Assets—						
Outstanding rates (including interest)	34,480	74,553	109,033	32,408	63,909	96,317
Stores and materials	3,355	6,136	9,491	3,360	5,369	8,729
Bank balance and cash	33,656	43,387	77,043	26,091	41,465	67,556
Land and buildings	113,326	212,254	325,580	137,221	220,194	357,415
Plant and furniture	20,252	39,601	59,853	22,489	44,932	67,421
Other	20,984	38,704	59,688	9,120	30,107	39,227
Total	226,053	414,635	640,688	230,689	405,976	636,665

The principal asset of the municipalities consists of land and buildings, which were at the end of 1910 valued at £357,415, or 56 per cent. of the total assets. Outstanding rates and interest amounted to £96,307, while bank balances and cash in hand were equal to £67,566.

LOANS.

The total amount of loans raised during 1910 was £717,140, including £552,900 borrowed by the City of Sydney and allowing for additions and reductions of secured overdrafts; while the sinking funds were increased by £34,049. Most of the new loans in the suburban and country districts were renewals, opportunity naturally being taken of the general reduction in the rates of interest to considerably reduce the annual liability in respect of interest charges. Apart from the liability of the State under the Country Towns Water and Sewerage Act, the total amount of loans outstanding at the close of the year was £4,685,008, and towards this amount there was at the credit of the sinking funds a sum of £290,995.

Rates of interest ranged from $3\frac{1}{4}$ per cent., which was carried by £12,039, to 8 per cent., which, however, was payable only on £100; and the amount paid and due as interest on loans during the year was £183,978. The total indebtedness was £4,685,008, bearing an average rate of interest of 3.93 per cent., viz., 3.92 per cent. on the loans of the City of Sydney, 3.83 per cent. on those of the suburban municipalities, and 4.08 per cent. on those of the country municipalities.

The average rate of interest payable on all loans is scarcely, however, an index of the true value of municipal debentures to the investors, as out of a total debt of £4,685,008 the sum of £1,979,404 pays interest at 4 per cent., £1,078,115 at $3\frac{7}{8}$ per cent., and £518,033 at $3\frac{3}{4}$ per cent. Of these amounts the metropolitan municipalities are responsible for £1,841,578, £1,078,115, and £509,700 respectively. The country municipalities borrowed £204,291 at $4\frac{1}{2}$ per cent., £130,604 at 5 per cent., and £137,826 at 4 per cent.

The total debt per head of population living in municipalities amounted to £4 9s. 11d., without allowance being made for sinking funds, while the yearly charge for interest is 3s. 6d. per head. These sums, compared with the resources of the municipalities, appear by no means formidable.

The following are the outstanding loans on the 31st December, 1910, and the sinking funds set apart to meet them:—

Division.	Loans Outstanding.			Sinking Funds.	Interest paid and due on Loans, 1910.
	New South Wales.	London.	Total.		
	£	£	£	£	£
Sydney--City	2,321,900	910,000	3,231,900	259,060	126,713
„ Suburbs	634,578	141,500	776,078	18,969	31,008
Country	540,382	29,106	569,488	12,966	26,257
Total	£ 3,496,860	1,080,606	4,577,466	290,995	183,978

Temporary loans, amounting altogether to £53,734, which bear interest at current bank rates, and loans payable on demand amounting to £53,808, are excluded from the above table.

The loans are redeemable at various periods from 1910 to 1945, and the total amount to be repaid in London was £1,080,606, or rather less than one-fourth of the total, and the total amount of debentures held locally was £3,496,860.

The majority of the loans are renewable at maturity, and sinking funds have been established in connection with several of the issues, the aggregate amount of which, at the end of 1910, was £290,995.

Under the Local Government Act, 1906, a municipality may borrow to an amount which, with existing loans, does not exceed 10 per cent. of the unimproved capital value of ratable lands. Where, at the commencement of the Act, any municipality had exceeded this limit, it could not borrow further until the total amount owing had fallen below the limit.

Purposes for which loans may be raised are prescribed (a) for permanent improvements or works; (b) for any object which the Council may legally effect; and (c) for the repayment of former loans. All loans are to be borrowed on the credit of the municipality, and to be a charge upon the revenues.

It has been explained previously that, in respect of municipalities operating under the regulations of the Local Government Act, a separate loan fund must be kept relating to each work or service for which loans are raised. There are, therefore, numerous funds relating to such matters

as permanent improvements, town hall and other property, garbage service, wharves, electricity, gas, cattle sale-yards, street-watering, and others.

It has been considered inadvisable to show the revenue accounts of these funds, as their revenue practically consists of transfers from other funds to repay principal and interest, and there is a danger of duplication in quoting them. The following is a statement of the total liabilities and assets of all the funds. It is incomplete to some extent, as several municipalities, where a loan related to a trading concern or public work, have included the assets in the balance sheet of those concerns, and not in the balance sheet of the loan fund.

	Suburbs.	Country.	Total
Liabilities—	£	£	£
Loans current	772,037	611,045	1,383,082
Interest due and unpaid... ..	7,218	16,881	24,099
Other	1,162	495	1,657
Total	£ 780,417	628,421	1,408,838
Assets—			
Bank balance and cash	7,707	9,305	17,012
Sundry creditors (including amounts due from other funds)	7,052	32,025	39,077
Land and buildings	104,210	169,791	274,001
Plant, &c.	27,611	165,813	193,424
Investments	10,946	8,713	19,659
Other	7,698	50,395	58,093
Total	£ 165,224	436,042	601,266

The liabilities of the loan funds exceeded the assets by £807,572, but against the loans of a municipality may be set its whole revenue and credit, so that there is no element of danger in the position as stated. Further, the municipalities have inconvertible assets in the shape of roads, streets, bridges, and other permanent improvements, which have been constructed out of loans, and which, at the end of 1907, were valued at over six millions sterling. Although these have not been included in the balance sheet, they are most necessary for developing the various localities, and add materially to their resources for rating purposes, in the added value they give to property.

SHIRES.

Since the 1st January, 1907, there have been 134 shires working under the Local Government Act of 1906. These shires are all in the Eastern and Central Divisions, 96 being in the former and 38 in the latter. With the exception of 8 municipalities, the Western division is unincorporated.

The shires vary in area from 36 square miles in the case of Ku-ring-gai, immediately north of the metropolis, to 5,745 square miles in the case of Lachlan, whose headquarters are at Condobolin. The smallest shires are in the most closely settled parts of the State. A general rate, not less than 1d. in the £, and not more than 2d. in the £, may be levied by shires on the unimproved capital value of all ratable land. If, however, the general rate of 1d. is more than sufficient to meet requirements, the Governor may allow the rate to be reduced below 1d. In 1910 six shires levied a rate less than 1d.

The rates levied in 1910, and the unimproved capital value of the land in each class are as follows:—

No. of Shires.	General Rate levied in £.	Unimproved Capital Value of Land. £	No. of Shires.	General Rate levied in £.	Unimproved Capital Value of Land. £
1	$\frac{1}{2}$	1,472,826	23	$1\frac{1}{4}$	13,109,370
2	$\frac{3}{4}$	1,691,054	20	$1\frac{1}{2}$	10,322,122
4	$\frac{3}{4}$	4,626,443	7	2	3,990,316
75	1	54,027,624	—	—	—
2	$1\frac{1}{2}$	696,157	134	...	£89,935,912

In addition to the general rates shown above, local rates were also levied by several shires, particulars of which are shown in the following table:—

Shire.	District.	Purpose for which Levied.	Amount of Rate.
Berrigan ...	Berrigan ...	Drainage ...	2d. in £ on u. c. v.
	Tocumwal ...	do ...	3d. in £ on u. c. v.
Bland ...	Barnedman ...	Street improvements...	2d. in £ on u. c. v.
Blaxland ...	Portland ...	Roads and streets improvements and water supply.	6d. in £ on u. c. v.
Bolwarra ...	Lorn ...	Street lighting	$\frac{1}{4}$ d. in £ on i. c. v.
	Bolwarra ...	Drainage ...	$1\frac{1}{4}$ d. in £ on u. c. v.
	do ...	Fire Brigade ...	$1\frac{1}{2}$ d. in £ on u. c. v.
Crookwell ...	Crookwell ...	Street maintenance ...	2d. in £ on u. c. v.
Gloucester ...	Gloucester ...	Street maintenance and construction.	$1\frac{1}{4}$ d. in £ on u. c. v.
Hornsby ...	Hornsby ...	Street lighting	$\frac{3}{4}$ d. in £ on u. c. v.
Ku-ring-gai ...	Ku-ring-gai ...	Street lighting	$\frac{3}{4}$ d. in £ on u. c. v.
Lake Macquarie..	Boolaroo and West Wallsend ...	Fire Brigade ...	$\frac{1}{4}$ d. in £ on u. c. v.
Liverpool Plains..	Curlewis ...	Tree planting ...	$\frac{1}{4}$ d. in £ on u. c. v.
Lockhart ...	Lockhart urban area...	Additional general rate	5d. in £ on u. c. v.
Lyndhurst ...	Millthorpe ...	Improvement of streets	2d. in £ on u. c. v.
Patrick Plains ...	Jerry's Plains ...	Water supply ...	1d. in £ on u. c. v.
Warringah ...	Freshwater ...	Street lighting	$\frac{1}{4}$ d. in £ on u. c. v.
Wingadee ...	Quambone ...	Water supply ...	$\frac{1}{4}$ d. in £ on u. c. v.

The unimproved capital value of the shires in 1910 was £89,935,912. It is not possible to give the improved capital value or the assessed annual value, as the shires are not compelled to make these valuations. The total amount of general rates levied was £420,653, and special and local rates £2,824. These figures represent the rates actually levied in respect of the year 1910, and differ from the amount, £421,596, shown in next table. The difference is due to the inclusion of interest on unpaid rates, amounting to £943.

In several cases the general rate was not sufficient to meet the requirements, and the State paid endowments to a large number of shires. Endowments are fixed every third year, and are determined according to the extent of the shire, the probable revenue from a rate of 1d. in the £, the necessary expenditure, the extent of roads and other public works to be constructed and maintained, and other matters. The endowment in any year is paid on the general rates actually collected in the preceding year. There are six classes into which the shires are divided for endowment purposes, the classification for the three years 1907-09 being as follows:—

47	shires in 1st class receive no endowment.
27	" 1st " " up to 10s. in the £ on General Rate.
12	" 2nd " " " 15s. " "
8	" 3rd " " " 20s. " "
9	" 4th " " " 25s. " "
8	" 5th " " " 30s. " "
23	" 6th " " not less than 40s. in the £ on General Rate.

In 4 cases the endowment was 100s. or over in the £, the highest being 133s. to Bellingham Shire. In 1910 the Government paid £277,731 as endowment to the shires. A further sum of £45,927, as grants for special purposes, was also paid, making the total subvention from the State £323,658.

At the end of 1909 the endowments to be paid during the triennium, 1910-12, were fixed. In no case was the rate of endowment reduced; but in 64 cases it was increased. The classification for the period mentioned is as follows, and may be compared with the statement above:—

27 shires in 1st class receive no endowment.

41 „ 1st „ „ up to 10s. in the £ on General Rate.

10 „ 2nd „ „ „ 15s. „ „

9 „ 3rd „ „ „ 20s. „ „

7 „ 4th „ „ „ 25s. „ „

14 „ 5th „ „ „ 30s. „ „

26 „ 6th „ „ not less than 40s. in the £ on General Rate.

INCOME.

The principal heads of income in 1910 were as follows, and for purposes of comparison the 1909 figures are attached:—

Particulars.	1909.		1910.	
	Income.	Per cent.	Income.	Per cent.
General Fund—	£		£	
General rates	374,540	52·2	421,596	53·1
Government endowment	261,029	36·4	277,731	35·0
Public works	57,017	8·0	59,527	7·5
Health administration	3,033	0·4	3,746	0·5
Public services	6,691	0·9	7,441	0·9
Shire property	1,721	0·3	4,229	0·5
Miscellaneous	5,651	0·8	5,008	0·6
Special and local funds	7,462	1·0	15,095	1·9
Total revenue... ..	£ 717,144	100·0	794,373	100·0

The proportion of general rates showed an increase in 1910, being 53·1 per cent. of the total income, as compared with 52·2 per cent. in the previous year. There was a slight increase in the Government endowment, while the income from special and local funds was more than doubled, owing principally to the expansion in the Sanitary and Garbage Accounts.

Of the total income in 1910, Government assistance, exclusive of grants for public works, provided 35·0 per cent., as against 36·4 per cent. in 1909. The principal items in public works were contributions to roads, bridges, &c., £7,526; Government grants for roads, &c., £36,575; and the receipts from ferries, including Government grants amounting to £8,314, were £13,571. The principal item in public services was rent, &c., from public watering places, £6,228. The income derived from special and local funds, consisting of the proceeds of special and local rates and sanitary and garbage fees, claimed 1·9 per cent. of the total, as compared with 1·0 per cent. in 1909.

EXPENDITURE.

The following statement shows the expenditure during 1910 in comparison with the previous year :—

Particulars.	1909.		1910.	
	Expenditure.	Per cent.	Expenditure.	Per cent.
General Fund—	£		£	
Administrative expenses	117,696	17·4	125,669	16·4
Public works	529,954	78·3	599,945	78·4
Health administration	4,573	0·7	4,840	0·6
Public services	10,290	1·5	13,012	1·7
Shire property	1,911	0·3	4,561	0·6
Miscellaneous	5,886	0·8	5,129	0·7
Special and local funds	6,474	1·0	11,976	1·6
Total expenditure	£ 676,784	100·0	765,132	100·0

The expenditure on the whole, and taking item for item, differs to such a slight extent in each year that it is apparent that the councils now measure their necessities in conjunction with their estimated revenue. With the Act in full working order the expenditure and income should be expected to increase only correlatively with the progress of the State.

The administrative expenses were £125,669, or 16·4 per cent. of the total expenditure. This may be considered high, especially in connection with the expenditure on works and services, and suggests the possibility of too many shires. Of the administrative expenses, £70,672 were on salaries, £12,697 on advertising, stationery, printing, &c., £8,426 on valuation fees, and £5,205 on president's allowance and councillors' travelling expenses. The expenditure on works accounted for 78·4 per cent. of the total, and was nearly double the grants received from Government. The principal expenditure was £546,640 on roads, streets, culverts, &c., of which £301,284 were on maintenance, repairs, and renewals, £243,952 on construction, and £1,404 on sundries. On other public works—bridges, punts, ferries, wharves, &c.—£28,918 were spent on maintenance and repairs, and £17,790 on construction.

BALANCE-SHEET.

The financial position of the shires on the 31st December, 1910, was strong, as there was an excess of assets of £262,938. The combined balance-sheet of the shires on 31st December, 1910, appears as follows :—

Liabilities.				Assets.			
General Fund :—				£			
Temporary Loans	£	11,147		Outstanding Rates... ..	£	27,726	
Due to Trust Fund		48		Stores and Materials		9,129	
Sundry Creditors		24,449		Bank Balance and Cash		130,671	
Due on Contracts		971		Sundry Debtors		9,056	
Other		20		Land and Buildings		36,252	
Total, General Fund	£36,635			Plant and Property		68,823	
Special or Local Funds	8,135			Furniture, &c.		12,971	
Total, all Funds... ..	44,770			Other		172	
Excess of Assets	262,938			Total, General Fund	£294,800		
Total	£307,708			Special or Local Funds	12,908		
				Total	£307,708		

It will be observed that a very large proportion of the assets of the General Fund—£130,671, or about 42 per cent.—consists of cash in the bank or in hand. Probably a large part of this amount represented endowments recently received from the Government. The liabilities of the special or local funds consist for the most part of amounts due to the General Fund and sundry creditors; and the assets, sundry plant, and buildings appropriated to these funds at their inception, outstanding fees and rates, and bank balances.

TAXATION BY LOCAL GOVERNING BODIES.

The total revenue collected by all the local governing bodies from rates and charges amounts to £1,976,510, equal to £1 4s. 5d. per head of the population residing in the taxable districts. This sum includes £958,611, rates collected by municipalities; £423,477, rates collected by shires; and £594,422, rates collected by the various Water and Sewerage Boards referred to later. The distribution of the total amount is as follows:—

Local Bodies.	General Rates	Special and Loan Rates	Total.	Per head.
	£	£	£	£ s. d.
Municipalities	873,104	85,507	958,611	0 18 5
Shires	420,653	2,824	423,477	0 14 8
Metropolitan water and sewerage charges	539,736	.....	539,736	0 15 5
Hunter District water and sewerage charges.	54,686	.....	54,686	0 12 9
Total	£ 1,888,179	88,331	1,976,510	1 4 5

It is evident from the foregoing figures that ratepayers served by the Water and Sewerage Boards pay water and sewerage rates in addition to ordinary rates, and as the rate burden per head over the rated area of the State is calculated on the total population of all municipalities and shires, these facts should be taken into consideration when quoting the figures. It follows that part of the population pays in rates less than £1 4s. 5d., while the remainder pays considerably more.

BOARDS AND TRUSTS.

In addition to the ordinary form of municipal local government, there are various boards and trusts with local jurisdiction. The control of the water supply and sewerage of the Metropolitan and Hunter districts is placed under separate boards. The Metropolitan and the Country Towns Water Supply and Sewerage Acts, the Fire Brigades Act, the Sydney Harbour Trust Act, and the Metropolitan Traffic Act, were all passed with the object of extending the principle of local government, and boards have been established to carry out the provisions of some of these Acts.

The majority of the Boards dealing with local affairs have jurisdiction within the metropolitan area, and work mainly in connection with the local municipalities, although possessing powers independent of those bodies. In 1900 the Metropolitan Traffic Act was passed, which repealed the Public Vehicles Act, 1899, and such portions of the Sydney Corporation Act of 1879 and the Municipalities Act, 1897, as were inconsistent with the Act, and placed the complete control of street traffic and the licensing of public vehicles, drivers, and conductors, under the Inspector-General of Police.

The Fire Brigades Act, 1909, which came into operation on the 1st January, 1910, repealed the Act of 1902. The provisions of the Act apply to the City of Sydney, to 41 suburban municipalities, to 85 country municipalities, and to such parts of six shires as may be notified in the *Government Gazette*; and they may be extended to other districts by proclamation. The provisions of the Act were extended during the year 1910 to part of one additional shire, and at the beginning of 1911 to one country municipality and areas in two shires; and during 1911 three municipalities and the area in one shire were withdrawn from the operation of the Act.

BOARD OF FIRE COMMISSIONERS.

The administration of the Act is placed in the hands of a Board of Fire Commissioners, consisting of five members. The councils of the metropolitan municipalities, the councils of the country municipalities and shires, the insurance companies, and the volunteer fire brigades each elect one member; and the president is appointed by the Governor. The Board may group together any municipalities or shires, and constitute them a fire district, and must estimate each year the amount to be expended in each district. The three parties—municipalities and shires, the insurance companies, and the Government—will each contribute one-third of this amount to the Board. Where a fire district contains more than one municipality or shire, the amount of contribution is apportioned according to the average annual value in the case of the City of Sydney, and to the assessed annual value under the Local Government Act of 1906 in any other municipality or shire. Where the Act applies to the whole of a municipality or shire, the contribution must be paid out of the City Fund of Sydney, and out of the general fund of any other municipality or of a shire. Where the Act applies to part only of a municipality or of a shire, the council must raise the required amount by a local rate in such part.

The estimates adopted by the Board for the year 1910 amounted to £64,872 for the Sydney Fire District and £19,677 for the Country Fire Districts—a total of £84,549; the contribution levied upon the municipalities and shires, the insurance companies, and the Government therefore amounted to £28,183 respectively.

The number of calls attended during 1910 were 1,259, of which 814 were in the Sydney district. Particulars are shown below:—

Calls.	Sydney District.	Country Districts.	Total.
False alarms	106	22	128
Chimney alarms	40	15	55
Fires—Slight	643	286	929
„ Serious	7	4	11
„ Total destruction... ..	18	118	136
Total	814	445	1,259

The Metropolitan Board of Water Supply and Sewerage was established in 1887, and the Hunter River District Board in 1892, and a reference to their transactions will be found in subsequent pages.

The Sydney Harbour Trust was established in the year 1900, and a description of its functions will be found in the chapter of this "Year Book" dealing with "Shipping."

Excluding the expenditure on works of national importance, the Government has expended no less than £43,616,000 on works of a purely local character, not including school buildings. The division of the State into local government districts will not necessarily be followed by an entire stoppage of expenditure on works of local interest by the central Government, but the larger portion of the works previously undertaken by the Government will be left to the local authorities, who, having to provide the revenue, will probably see that it is laid out to the best advantage. The expenditure on account of works which may be classed as local, during the last ten years, is given below.

Year ended 30th June.	Total Expenditure.	Per Capita.	Year ended 30th June.	Total Expenditure.	Per Capita.
	£	£ s. d.		£	£ s. d.
1901	1,666,000	1 4 7	1906	655,400	0 8 9
1902	1,671,400	1 4 0	1907	887,000	0 11 7
1903	1,349,100	0 19 2	1908	837,000	0 10 6
1904	768,400	0 10 9	1909	896,000	0 11 2
1905	641,300	0 8 9	1910	816,000	0 9 11

The amounts given above are approximate only, and include the expenditure from loans, consolidated revenue, and from Public Works Fund, but the endowments to municipalities and shires have not been taken into account. The large decline from 1903 to 1906 is due chiefly to the smaller borrowing policy of the Government, while the increase during the later years is caused by the operation of the Water and Drainage Act and a considerable expansion of tramway construction.

WATER SUPPLY FOR COUNTRY TOWNS.

The Country Towns Water Supply and Sewerage Act of 1880 was passed with the object of assisting municipalities to construct general systems of water supply and sewerage. To the end of June, 1911, forty-seven municipal councils had availed themselves of the privileges offered as regards the former service, and works were under construction in other municipalities.

The amount required for carrying out the works is advanced by the State. The municipality, however, has the option of supervising and constructing the works, failing which the Government undertakes these duties. Under the original Act, the sum advanced was to be repaid by instalments, with interest at the rate of 4 per cent., on the unpaid balances, each annual instalment to be equal to 6 per cent. of the total cost, and the first payment to be made twelve months after the date of the transfer of the works to the municipality; but as it was found that the municipalities which had contracted liabilities in respect of water supply works were unable to comply with these conditions, the Government, in 1894, passed an amending Act which granted them more favourable terms, the rate of interest being reduced to 3½ per cent., and the yearly repayments fixed at a maximum of 100. Under the amending Act of 1905, the rate of interest is fixed at 4 per cent. per annum. This Act also provides for the issue of licenses to workmen, for the recovery of rates, and for making by-laws for the assessment of lands, and for other purposes.

The following is a statement, as at the 30th June, 1911, of the waterworks completed and handed over by the Government, with the amounts expended, and the sums payable annually for the period of one hundred years:—

Municipality.	Amount of Debt (as gazetted).	Amount Payable Annually.	Municipality.	Amount of Debt (as gazetted).	Amount Payable Annually.
	£	£		£	£
Albury	41,000	1,483	Katoomba	20,730	884
Armidale	40,718	1,474	Kiama	7,073	256
Ballina	17,652	664	Lismore	18,526	716
Balranald	6,000	217	Lithgow	35,732	1,441
Bathurst	55,724	2,019	Mittagong	11,290	481
Berry	4,380	159	Moama	7,601	275
Blayney	10,771	389	Moree	10,940	396
Bourke	13,436	486	Moss Vale	13,000	470
Bowral	872	61	Mudgee	18,507	706
Casino	12,246	456	Murwillumbah	518	22
Cobar	26,160	946	Nowra	13,250	483
Condobolin	7,725	283	Nyngan	10,219	369
Coonamble	10,214	387	Orange	40,322	1,507
Cootamundra	22,916	876	Parkes	22,000	796
Corowa	10,579	464	Pictou	17,194	630
Cowra	15,521	662	Singleton	17,857	761
Deniliquin	18,468	668	Tumut	10,238	370
Dubbo	15,288	551	Wagga Wagga	41,588	1,518
Forbes	20,927	817	Warren	5,819	256
Goulburn	56,571	2,056	Wellington	12,433	451
Gunnedah	14,831	634	Wentworth	4,000	145
Hay	17,075	624	Wilcannia	8,381	303
Hillgrove	4,000	170			
Jerilderie	6,518	245			
Junee	42,000	1,519			
			Total	£ 838,829	31,546

At Forbes, Hay, and Wilcannia, the works were constructed by the municipal authorities, and the expenditure shown in the table is not the actual cost of the works, but the Government valuation.

The combined financial statements—revenue account and balance sheet—of the municipalities which maintain waterworks are shown below. The revenue account was as follows for 1910:—

Expenditure.	Income.
	£
Management	12,168
Working and maintenance	24,034
Repairs and renewals	2,105
Interest payable to Government...	28,816
Other... ..	3,338
Total... ..	£70,462
	£
Rates levied... ..	45,199
Meter rents	246
Water sales	17,273
Garden charges, &c.	4,241
Total... ..	£66,959

Of the expenditure, management charges accounted for 17·3 per cent., working and maintenance for 34·1 per cent., repairs and renewals 3·0 per cent., interest payable to Government 40·9 per cent., and miscellaneous items 4·7 per cent.

Rates contributed 67·5 per cent. to the income, meter rents 0·3 per cent., water sales 25·8 per cent., and garden charges, &c., 6·4 per cent.

The combined balance-sheet, on the 31st December, 1910, was as follows :—

Liabilities.				Assets.			
Amount for which liable to Government	...	...	£ 837,920	Waterworks—plant, buildings, &c.	...	...	£ 849,021
Interest due to Government and unpaid	...	...	31,253	Outstanding rates...	...	...	14,914
Sundry creditors	...	...	16,350	Bank balances and cash in hand	...	...	18,667
				Stores and materials	...	...	2,721
				Sundry debtors	...	...	19,296
				Fixed deposits (including interest)	...	...	3,736
Total	...	...	£885,523	Total	...	...	£908,355

The total amount advanced by the Government was £849,106, of which £11,186 has been repaid, and the former sum practically represents the present value of the services; but where the works were not constructed by the Government, the value is included as an asset of the loan fund. A considerable amount of rates was outstanding on the date mentioned, while the bank balances and cash in hand were also large, and, on the whole, the assets exceeded the liabilities by £22,832.

SEWERAGE WORKS.

Only ten municipal councils have taken advantage of the Act providing for the construction of sewerage works in country towns, and the capital debt and annual repayments on the 30th June, 1911, were as follows :—

Municipality.	Amount of original Debt.	Amount payable Annually.	Municipality.	Amount of original Debt.	Amount payable Annually.
	£	£		£	£
Ballina ...	327	20	Lismore ...	17,589	636
Blayney ...	429	26	Narrandera ...	6,078	238
Casino ...	3,023	129	Parramatta ...	66,010	2,387
Cosaki ...	1,214	69	Tamworth ...	1,217	56
Forbes ...	1,624	58			
Hay ...	22,368	809	Total...	£ 119,879	4,428

Other sewerage systems are in existence in several places, which have been constructed altogether apart from the Act, but, with few exceptions, the operations have been on a minor scale. The general system of sewerage which is now being constructed in the metropolitan area will supersede the isolated systems of some of the suburban districts, and some of the sewers already made will eventually form part of the general scheme. The Metropolitan Board has already taken over part of the sewerage constructed by the City of Sydney and by the municipalities of Ashfield, Balmain, Darlington, Glebe, North Sydney, and Redfern.

In addition to the assistance granted for the works mentioned above, the Government has advanced a sum of £165,087 for swamp drainage, bores, garbage destructors, and other services, which is payable by annual instalments, and the amount outstanding on the 30th June, 1911, was £154,711.

Of the municipalities named in the above table, Ballina, Forbes, Tamworth, and Blayney do not levy special sewerage rates, and therefore do not keep a special account. The combined financial statements of the other municipalities are shown below. The revenue account was as follows :—

Expenditure.					Income.				

On the total operations for 1910 there was a gross profit of £12,817, none of the municipalities showing a loss. The manufacture of gas accounted for 66·3 per cent. of the expenditure, as compared with 68·5 per cent. in 1909, and private lighting for 73·6 per cent. of the income as against 73·7 per cent. in 1909.

The gross profit was reduced in the Net Revenue Appropriation Account, which is not shown here, by charges amounting to £13,828. Transfers to the loan fund included £5,509 for payment of interest and £3,619 for other purposes; and the net loss for 1910 was £259, which, deducted from the credit balance of £11,297 brought forward from 1909, leaves £11,038 to be carried forward.

The next statement is the balance-sheet of the trading account for 1910 :—

Liabilities.				Assets.			
Due to other Funds	...	...	£ 16,066	Materials, stock, &c.	...	...	£ 31,191
Sundry creditors	...	...	2,474	Sundry debtors, including amounts	...	...	...
Reserves	...	...	1,441	due from other funds	...	...	10,766
				Fixed deposits	...	...	985
				Bank balance and cash	...	...	8,678
Total	...	...	£19,981	Total	...	...	£51,620

The total excess of assets amounted to £31,639, each municipality, with two exceptions, contributing thereto.

The following balance-sheet of the loan fund really shows the value of the assets of this trading concern for 1910 :—

Liabilities.				Assets.			
Loans current	...	...	£ 156,549	Land and buildings	...	...	£ 40,240
Interest accrued not paid...	...	...	1,539	Plant, &c.	...	...	127,076
				Due from other funds	...	...	14,174
				Investments	...	...	5,968
				Other	...	...	9,156
Total	...	...	£158,088	Total	...	...	£196,614

Against a total loan indebtedness of £158,088, the municipalities had assets valued at £196,614, the excess of assets being substantial. Of the assets, land, buildings, plant, &c., made up 85·1 per cent.; amounts due from other funds, chiefly trading accounts, 7·2 per cent.; and investments, &c., 7·7 per cent.

ELECTRICITY WORKS.

The following municipalities have erected electric lighting plants :— Sydney, Redfern, Broken Hill, Moss Vale, Newcastle, Penrith, Tamworth, and Young. These works were erected under special Acts, as electric lighting may not be undertaken without the authority of a special Act.

Dealing with the electricity works in a similar manner to the gas works, the following show the results of the operations in 1910 in respect of municipalities operating under the Local Government Act, Sydney electric lighting undertaking having already been dealt with.

The following is the trading revenue account for 1909 and 1910 :—

Expenditure.	1909.	1910.	Income.	1909.	1910.
	£	£		£	£
Generation	8,688	11,105	Private lighting ...	6,662	7,410
Distribution	1,683	1,697	Public lighting ...	8,780	9,084
Management, &c. ...	1,195	1,434	Power supply ...	1,897	4,211
Special charges ...	371	1,439	Rents of meters, &c. ...	60	141
Reserves (renewals and repairs)	1,008	452	Other	934	210
Public lighting	858	1,952			
Other	103	134			
Total	£ 13,906	18,213	Total	£ 18,333	21,056

Generation of electricity is the largest item of expenditure, accounting for 61 per cent. of the whole. Distribution of the current cost 9·3 per cent., and management 7·9 per cent. The gross profit of this concern to the municipalities combined was £2,843; but the transactions of the Net Revenue Appropriation Account (not included here) show a debit balance of £10,990 to be carried forward to the next account. This unsatisfactory result was brought about by the burdening of the debit side of the account with amounts transferred to the loan fund.

The balance-sheet of the trading fund for 1910 is as follows :—

Liabilities.		Assets.	
	£		£
Due to other funds	6,249	Materials; stock, &c. ...	1,937
Sundry creditors	2,734	Sundry debtors	4,167
		Bank balance and cash ...	2,266
		Other	76
Total	£ 8,983	Total	£ 8,446

The last statement is the balance-sheet of the loan fund for 1910 :—

Liabilities.		Assets.	
	£		£
Loans current	94,255	Land and buildings ...	6,286
Interest accrued not paid ...	11,744	Steam plant	21,668
Other	1,575	Dynamos	5,501
		Cables, poles, &c. ...	30,546
		Due from other funds ...	13,972
		Bank balance and cash ...	4,820
		Other	7,501
Total	£ 107,574	Total	£ 90,294

The liabilities exceed the assets by £17,280, and the assets do not even cover the outstanding loans. It should be noted, however, that while the trading fund is able to meet interest charges, provide for redemption and sinking fund, and still show a surplus, there is no reason to doubt the solvency of the undertaking.

METROPOLITAN BOARD OF WATER SUPPLY AND SEWERAGE.

In March, 1888, the Government passed an Act establishing a Board of Administration, under the title of the Metropolitan Board of Water Supply and Sewerage, to regulate the water supply and sewerage services in the county of Cumberland, including those under the control of the City Council. The management of the former service was transferred to the Board in May, 1888, and of the latter in September, 1889. The total length of water mains taken over was 355 miles, and on the 30th June, 1911, this had increased to 1,696 $\frac{3}{4}$ miles, inclusive of trunk mains. There were 70 $\frac{1}{4}$ miles of sewers in 1889, lengthened to 825 $\frac{1}{4}$ miles in 1911.

The Board consists of seven members, three of whom are appointed by the Government, two by the City Council, and two by the suburban and country municipalities within the county of Cumberland which are supplied with water. The Board is subject to the general control of the Minister for Works—a provision considered necessary, as the Government advances the whole of the money for the construction of the works, the amount so advanced constituting part of the public debt of the State.

METROPOLITAN WATER SUPPLY.

As early as 1850 authority was given by the Legislative Council to the City Corporation for the construction of water and sewerage works, and a system of water supply from the Lachlan, Bunnerong, and Botany Swamps was adopted. By this scheme the waters of the streams draining these swamps were intercepted at a point near the shore of Botany Bay. A pumping plant was erected there, and the water raised to Crown-street reservoir, 141 feet above the level of the sea, thence into Paddington reservoir, at an elevation of 214 feet above sea-level; and to Woollahra, 282 feet above sea-level. The cost of these works was £1,719,565. This system has since been superseded by the Upper Nepean system, the management of which was transferred in 1888 to the Metropolitan Board of Water Supply and Sewerage.

The sources of supply under the existing system are the waters of the Nepean, Cataract, and Cordeaux Rivers, draining an area of 354 square miles, a catchment enjoying a copious and regular rainfall. The off-take works are built at a height of 437 feet above the level of the sea, and the water flows by means of tunnel, open canal, and wrought-iron aqueducts to Prospect Reservoir, a distance of 40 miles from the farthest source of supply. The conduits above Prospect Reservoir have a maximum delivery of 150,000,000 gallons per day, and for 10 miles below this reservoir the capacity of the canals and pipes is 50,000,000 gallons. For the last 11 miles the water is conveyed by two 48-inch mains. In this work there are 63 $\frac{1}{4}$ miles of tunnels, canals, and pipes.

Notwithstanding the size of Prospect Reservoir, it was found in 1902—a very dry year—that the supply was not sufficient for the growing needs of the metropolis. The Government therefore decided to build the Cataract Dam, which was completed in 1908, the catchment area above the dam being about 50 square miles. The water flows from this dam down the Cataract River to a weir at Broughton's Pass, where it enters a tunnel previously existing, and is conveyed by a system of open canals to the Prospect Reservoir. The total distance from Cataract to Sydney, *via* Prospect, is 66 $\frac{1}{2}$ miles.

The dimensions of the Prospect and Cataract dams are shown in the following statement:—

Dam.			Height above Sea level.	Area.	Capacity.	Length.	Width at top.	Height.
			ft.	acres.	gallons.	ft.	ft.	ft.
Prospect	...	...	195	1,266 $\frac{1}{3}$	11,029,180,000*	7,300	30	85 $\frac{3}{4}$
Cataract	...	...	950	2,400	21,411,000,000	811	16 $\frac{1}{2}$	160

* When full, about half this quantity is available by gravitation.

From Prospect the water flows 5 miles by open canal to the Pipe Head Basin, thence 5 miles by 6-feet wrought-iron and steel pipes to the Potts' Hill Balance Reservoir, which has a capacity of 100,000,000 gallons, and covers 24 $\frac{1}{2}$ acres. This reservoir was designed to tide over any interruption in the supply from Prospect, as well as to prevent fluctuation at the head of pressure. A by-pass is laid along the floor to enable mains to deliver water to Sydney direct.

At Potts' Hill the water passes through a series of copper-gauze screens, and is then conducted by two 48-inch mains into Sydney. At Lewisham a bifurcation takes place in one of these mains; one branch supplying the Petersham Reservoir, the other continuing to Crown-street. The Petersham Reservoir is 166 feet above high-water mark, is built of brick, and has a capacity of 2,157,000 gallons. The new 48-inch main, laid in 1893, from Potts' Hill direct to Crown-street, is worked alternately with the old. These two trunk mains are connected at Petersham as an intermediate spot. The Crown-street Reservoir is 21 miles from Prospect. It is of brick, and contains 3,250,000 gallons, the top water-level being 141 feet above high-water mark.

On account of the elevation of parts of the reticulated area, pumping is necessary for the purpose of supplying the upper zones, and no less than 6,590·69 million gallons were raised at the various stations during the twelve months ended June, 1911, representing 60·8 per cent. of the water consumed. Pumping expenses amounted in the aggregate to £25,075. At Crown-street is situated the main pumping station, where are erected three sets of compound high-duty pumping engines. A covered reservoir, of a capacity of 17,000,000 gallons, has been constructed in the Centennial Park, at a height of 245 feet, for the purpose of ensuring a larger bulk of water within the city limits. This, it is believed, is the largest service tank in the Southern Hemisphere. At Ashfield there is a 100,000-gallon wrought-iron tank at an elevation of 223 above high water. This tank is supplied from the Centennial Park Reservoir by a main, and provides for the higher part of the district. Vacluse Reservoir is connected with Waverley, and supplies a district of about 1,200 acres around Vacluse and South Head. It has a diameter of 107 feet, a depth of 18 feet, and its capacity is 1,000,000 gallons.

North Sydney receives its supply from Potts' Hill, *via* Ryde, where there is a reservoir containing 2,116,000 gallons, from which the water is pumped into a million-gallon tank at Ryde village, 234 feet above sea-level, and, by a continuation of the same main, into a pair of tanks, of a joint capacity of 3,000,000 gallons, at Chatswood, at an elevation of 370 feet above high-water mark. Water can be lifted direct from Ryde to Wahroonga and Pymble, or may be re-pumped from Chatswood, where a small pumping station has been erected. There are two tanks of 1,000,000 and 40,000 gallons capacity at Wahroonga, 7 $\frac{1}{2}$ miles distant, at an elevation of 717 feet above sea-level, whence the water flows as far as Hornsby,

13 miles to the north-west of Port Jackson. A concrete reservoir of a capacity of 500,000 gallons has been constructed at Pymble. From this reservoir the districts between Pymble and Chatswood are served, thus reducing the abnormal pressure by reason of the supply being from so great a height as Wahroonga.

From the Ryde village tank the whole of Ryde, Gladesville, and Hunter's Hill are supplied; while a 9-inch main extends over the Parramatta and Iron Cove bridges to supply Balmain. An elevated tank, with a capacity of 72,800 gallons, and a reservoir with a capacity of 1,925,000 gallons have been erected for the convenience of residents at Mosman.

The districts of Campbelltown and Liverpool are supplied from the main canal by gravitation. At the latter place, a 4,000,000-gallon earthen reservoir has been constructed, and a tank with a capacity of 250,000 gallons, for the purpose of tiding over any interruption in the flow from the canal. Other districts lying nearer Sydney, viz., Smithfield, Granville, Auburn, and Rookwood, are also supplied *en route*; and at Smithfield there is a 100,000-gallon concrete tank, the top water of which is 175 feet above sea-level. At Penshurst there are two tanks 270 feet above sea-level, one of which has a capacity of 1,000,000 gallons, and the other of 20,000 gallons. Works for the supply of water to the towns of Camden and Narellan, from a point on the canal near Kenny Hill, were completed in October, 1899, and the scheme has proved satisfactory. In 1893, the Board assumed control of the Richmond waterworks, in 1902 of the Manly works, and in 1903 of the Wollongong works. Manly is also connected with the metropolitan system by a main from Mosman, crossing Middle Harbour.

The following statement shows the number of houses and population in the metropolitan area supplied with water during the last ten years:—

Year ended 30th June.	Houses Supplied.	Estimated Population supplied.	Average Daily Supply.	Total Supply for Year.	Average Daily Supply.	
					Per House.	Per Head.
	No.	No.	gallons.	gallons.	gallons.	gallons.
1902	101,966	509,000	21,906,000	7,995,822,000	215	43·0
1903	104,681	523,000	16,896,000	6,166,992,000	161	32·3
1904	109,191	546,000	18,690,000	6,840,549,000	171	34·2
1905	112,343	561,700	21,712,800	7,925,184,000	193	38·7
1906	116,202	581,000	22,393,300	8,173,555,000	193	38·5
1907	120,782	603,900	22,912,600	8,263,104,000	189	37·9
1908	124,083	620,400	24,500,400	8,967,135,000	197	39·5
1909	128,508	642,500	25,911,400	9,457,660,000	201	40·3
1910	133,788	668,900	26,903,155	9,819,651,727	201	40·2
1911	139,237	696,200	29,006,668	10,587,433,975	208	41·7

The average daily consumption during the year ended 30th June, 1911, was 29,006,668 gallons, equivalent to 208 gallons per house, or 41·7 gallons per head of population. The consumption was restricted in 1903 and 1904, and has not yet reached the average of the years preceding the two mentioned.

The rate levied for water is 6d. in the £ in the Metropolitan district, while 11d. is the charge for 1,000 gallons by meter. The revenue from the Water Service Branch during the year ended 30th June, 1911, exclusive of the country towns, was £299,442, and the expenditure, including interest on capital, £291,841. The net revenue showed a return of 3·69 per cent. on the capital debt of £5,420,813.

The following statement gives the transactions for each of the last ten years:—

Year ended 30th June.	Capital cost—interest-bearing.	Revenue.	Working expenditure.	Interest.	Net return after paying working expenses.	Net profit after paying working expenses and interest.
	£	£	£	£	per cent.	£
1902	3,998,531	223,201	56,226	135,306	4·18	31,669
1903	4,077,365	220,745	70,008	134,740	3·70	15,997
1904	4,289,012	222,827	57,800	144,927	3·85	20,100
1905	4,434,991	251,503	66,015	153,304	4·18	32,184
1906	4,674,341	270,263	64,487	164,216	4·40	41,560
1907	4,902,463	275,591	67,593	176,170	4·24	31,828
1908	5,009,012	283,410	75,016	183,033	4·16	25,361
1909	5,146,302	267,519	80,281	185,591	3·64	1,647
1910	5,286,917	284,943	93,027	184,486	3·63	7,430
1911	5,420,813	299,442	99,355	192,486	3·69	7,601

The charges were reduced in 1907 and in 1908; but the returns still show a profit after paying working expenses and interest.

In addition to the city and suburbs, various country towns are supplied with water by the Metropolitan Board, and their accounts are kept distinct from those of the metropolis. The works at Richmond and Wollongong were constructed under the Country Towns Water Supply and Sewerage Act, and subsequently handed over to the Board; also the districts of Campbelltown, Camden, and Narellan, and Liverpool, receive the water by gravitation from the upper canal at Prospect. The following table shows particulars of the capital, receipts, and expenditure in the country districts during the year ended 30th June, 1911:—

District.	Capital Cost.	Revenue.	Annual Liability.			
			Interest and instalment required to pay off cost of reticulation in 100 years.	Maintenance, including proportion of Head Office expenses.	Charges for water supplied from Canal.	Total.
	£	£	£	£	£	£
Campbelltown	8,318	748	301	190	171	662
Liverpool	20,797	1,027	752	356	405	1,513
Camden and Narellan	10,829	551	392	174	244	810
Richmond	13,692	711	495	611	...	1,106
Wollongong	49,907	3,049	1,805	843	...	2,648

THE HUNTER DISTRICT WATER SUPPLY.

The water supply works of the Lower Hunter were constructed by the Government under the provisions of the Country Towns Water Supply and Sewerage Act of 1880. In 1892, under the authority of a special Act, a Board was established on similar lines to those of the Metropolitan Water and Sewerage Board, the number of members being the

same—three being nominated by the Governor, one elected by the Municipal Council of Newcastle, two by the adjacent municipalities, and one by the municipalities of East and West Maitland and Morpeth. The following districts are within the area of the Board's jurisdiction:—

Municipalities—

Adamstown, Carrington, Greta, Hamilton, Lambton and New Lambton, East and West Maitland, Merewether, Morpeth, Newcastle City, Plattsburg, Wallsend, Waratah, Wickham.

Shires—

In Bolwarra Shire: Bolwarra, Lorn.

In Cessnock Shire: Aberdare, Abermain, Abermain Government Township, Cessnock, South Cessnock, Hebburn, Heddon Greta, Homeville, Kurri Kurri, Mayfield, Neath, Oakhampton, Rutherford, Telarah, Weston.

In Lake Macquarie Shire: Argenton, Boolaroo, Spier's Point, West Wallsend.

In Tarro Shire: Hexham, Minmi, Morpeth Road, Pelaw-Main, Stanford Merthyr.

The supply of water for the district is pumped from the Hunter River, about a mile and a half up stream from the Belmore Bridge, West Maitland. The pumping engines are situated above flood-level, on a hill about 44 chains from the river. At the pumping station there is a settling tank of 1,390,500 gallons; also six filter-beds, 10,000 superficial feet each, a clear water-tank of 589,500 gallons capacity, and a storage reservoir of 172,408,100 gallons available capacity. The filtered water is pumped from the clear-water tank into two summit reservoirs, one at East Maitland and one at Buttai. The former is connected by a 10-inch cast-iron main about $4\frac{1}{2}$ miles in length, with a capacity of 463,430 gallons, and supplies East Maitland, West Maitland, Morpeth, and neighbouring places. Buttai Reservoir is fed by two rising mains, one riveted steel pipe, $20\frac{3}{4}$ inches diameter, and a 15-inch cast-iron main, $5\frac{3}{8}$ miles in length; it has a capacity of 1,051,010 gallons, and supplies Newcastle and environs. Twelve district reservoirs which are supplied from Buttai, nine by gravitation and two by repumping, receive water for distribution.

The length of the mains when the Board was established was 105 miles, which has been increased to $338\frac{1}{2}$ miles as at the 30th June, 1911.

Particulars relating to the water supply of the Board are given below. A water rate of 10d. in the £ is payable on the assessed annual value of all properties over £12 in value, and the charge by meter is 2s. per 1,000 gallons.

Year ended 30th June.	Houses Supplied.	Estimated Population served.	Supply.		Average Daily Supply.	
			Daily (average).	Total.	Per House.	Per Head.
	No.	No.	gallons.	gallons.	gallons.	gallons.
1902	9,875	49,400	1,119,000	408,508,000	113	22·6
1903	10,522	52,600	1,113,000	406,172,000	106	21·2
1904	11,100	55,500	1,093,000	399,954,000	98	19·7
1905	12,167	60,800	1,266,000	461,936,000	104	20·8
1906	12,968	64,840	1,478,500	539,655,000	114	22·8
1907	13,569	67,845	1,479,400	539,964,500	109	21·8
1908	14,457	72,285	1,654,100	603,755,000	114	22·8
1909	15,679	78,395	1,766,271	644,689,025	113	22·5
1910	16,446	82,230	1,650,677	602,497,355	100	20·1
1911	17,164	85,820	1,849,901	675,213,858	108	21·5

The funds necessary for the maintenance and management of the water supply and sewerage services, as well as the sum required to pay interest on the capital debt, are obtained by rates levied on the properties situated in the districts benefited by the systems. The assessments of the Municipal Councils are generally accepted by the Boards as the values on which to strike their special rates. In cases of heavy consumption of water, a charge is made according to the quantity used; but fixed charges are imposed for the use of water in certain trades and callings, for gardens, and for animals.

Year ended 30th June.	* Estimated Capital Debt.	Revenue.	Expenditure (including Interest).	Return on Estimated Capital Debt.
	£	£	£	per cent.
1902	494,644	29,558	32,109	2·98
1903	500,784	31,102	32,217	3·27
1904	515,565	31,360	32,361	3·30
1905	533,270	34,486	33,714	3·64
1906	544,798	40,801	34,801	4·60
1907	398,618	41,822	38,886	6·25
1908	454,199	43,609	39,664	4·37
1909	474,485	43,395	41,184	3·90
1910	485,967	46,767	43,126	4·17
1911	495,747	45,711	45,420	3·55

The capital debt has been adjusted as from the 30th June, 1907, in accordance with the report of the Committee appointed to investigate the accounts of the Board. The reduction was effected by writing off the difference between the revenue and expenditure of the Board, allowing for depreciation of the works to the 30th June, 1907.

METROPOLITAN SEWERAGE WORKS.

The first sewerage works at Sydney were begun in 1853; and in 1889, the date of transfer to the Board, there were 70½ miles of old city sewers in existence. The original scheme was designed on the "combined" system, by which street-surface water as well as sewage was removed. The works comprised five main outfalls discharging into the harbour at Blackwattle Bay, Darling Harbour, Sydney Cove, Fort Macquarie, and Woolloomooloo Bay. The pollution of the harbour consequent on these outlets, led to the appointment of a Commission of Inquiry, and the outcome of the labours of the Commission was the adoption of the present system.

The new system consists of three main outfalls, the northern, southern, and western; the northern discharges into the Pacific Ocean near Bondi, and the southern and the western discharge into the sewage farm at Webb's Grant, near Botany Bay. The northern system receives sewage from Waverley, Bondi, Woollahra, Double Bay, Darling Point, Rushcutter's Bay, Elizabeth Bay, and parts of Woolloomooloo.

The southern main outfall commences at a point on the north side of Cook's River, near Botany Bay, and receives the drainage from Alexandria, Waterloo, Erskineville, Newtown, and portions of the Surry Hills district. The inlet-house, into which the sewage passes, is fitted with the latest machinery for straining the sludge, and for ejecting the fluid after filtration. A portion of the area has been cultivated, and fair crops have been raised. Storm-water channels are also constructed at various points to carry off the superfluous water after heavy rainfalls.

The western outfall, which provides for the western suburbs, starts at a receiving chamber in the Rockdale end of the sewage farm, from which it runs to another chamber about a quarter of a mile to the

north-east of Muddy Creek, and thence to a penstock chamber at Marrickville on aqueducts over Wolli Creek and Cook's River. The latter chamber receives the discharges from the eastern, northern, and western branch sewers, and drains part of Marrickville, Petersham, Stanmore, Newtown, Leichhardt, Annandale, Camperdown, Summer Hill, Ashfield, Canterbury, Enfield, Burwood, Five Dock, and Concord. A branch outfall has been constructed at Coogee, which discharges into the ocean, and serves the districts of Randwick, Kensington, and Coogee. On the northern side of the city, extensive works have been completed; in the borough of North Sydney septic tanks were built in 1899 to deal with the sewage matter; and at Middle Harbour, Mosman, and Manly, ample provision has been made for the sanitation of the districts.

The subjoined statement gives the transactions relating to sewerage during the last ten years:—

Year ended 30th June.	Capital cost - interest- bearing.	Revenue.	Working expendi- ture.	Interest.	Net return after paying working expenses.	Net profit after paying working expenses and interest.
	£	£	£	£	per cent.	£
1902	3,269,444	135,441	44,746	111,029	2.77	- 20,334
1903	3,409,176	145,666	45,609	113,116	2.93	- 13,059
1904	3,824,530	156,274	43,320	129,653	2.95	- 16,699
1905	3,774,264	213,937	54,314	130,519	4.23	+ 29,104
1906	3,828,495	220,629	55,368	134,527	4.32	+ 30,734
1907	3,922,514	217,864	62,141	140,980	3.96	+ 14,743
1908	4,053,591	216,258	64,020	148,142	3.75	+ 4,096
1909	4,225,239	214,212	68,574	151,317	3.44	- 5,679
1910	4,351,381	223,131	70,851	151,943	3.49	+ 337
1911	4,496,290	234,208	79,636	159,070	3.43	- 4,498

There was a loss during the first three years of the table, but the four succeeding years each showed a profit. The rate was reduced in 1908, and although the returns showed a deficit during the year 1909, there was a profit in 1910. In 1911 there was a deficit of £4,498.

The sewerage rate from the city of Sydney and the eastern suburbs up to 1903 was 7d., the northern and the western suburbs being rated at 1s., but in 1904 a uniform rate of 11d. was imposed. In 1907 it was reduced to 10d., and in 1908 to 9½d.

The length of sewers in the metropolis, and the population and houses served during the last ten years are shown below:—

Year ended 30th June.	Houses connected.	Estimated Population served.	Length of Sewers.	Length of Storm-water Drains.	Length of Ventilating Shafts.	Length of Sewers Ventilated.
	No.	No.	miles.	miles.	feet.	miles.
1902	82,644	413,000	550.40	27.37	236,855	552.00
1903	78,620	400,000	588.38	37.27	239,767	595.00
1904	82,215	410,000	610.73	38.67	252,977	614.00
1905	85,958	430,000	630.42	44.71	256,535	621.70
1906	88,881	444,000	656.84	44.82	264,255	636.00
1907	91,940	457,000	684.38	46.15	281,885	654.00
1908	94,735	470,000	724.37	46.94	286,000	684.00
1909	98,009	490,000	760.16	47.30	297,910	714.00
1910	102,896	514,000	793.55	47.82	344,820	756.00
1911	106,879	534,000	825.20	48.85	376,900	795.00

The number of houses connected in 1902 includes reconstructions, which were classed as new connections in that and previous years, but this practice has since been abolished, and new connections only included.

NEWCASTLE AND SUBURBS SEWERAGE WORKS.

The sewerage scheme for Newcastle and suburbs, now in course of construction by the Public Works Department, will deal with the sewerage partly by gravitation and partly by pumping. The outfall is situated at Merewether Gulf, some distance south from Newcastle. Two gravitation sewers which branch from the main, one at Merewether and the other in the city of Newcastle, have been completed and transferred to the control of the Hunter District Water and Sewerage Board, also the reticulation sewers for the areas capable of being drained by gravitation. The first transfer was made in July, 1907, and the particulars of cost, revenue, and expenditure to 30th June, 1911, are shown below :—

Year ended 30th June.	Capital cost—interest-bearing.	Revenue.	Working expenditure.	Interest.	Net return after paying working expenses.	Net profit after paying working expenses and interest.
	£	£	£	£	per cent.	£
1907	53,763	.....	.....	.....	.....	.....
1908	65,017	17	627	2,374	.....	- 2,984
1909	87,127	745	1,461	2,779	.....	- 3,495
1910	128,655	6,192	2,303	3,814	3.02	+ 75
1911	170,151	8,975	4,217	5,368	2.79	- 610

The sewerage rate—1s. in the £ on the annual rental value—came into force on 1st January, 1909. As the following table shows, the length of sewers under the control of the Board on 30th June, 1911, was 30 miles, and 1,465 houses were connected :—

Year ended 30th June.	Houses connected.	Estimated Population served.	Length of Sewers.	Number of Ventilating Shafts.	Length of Sewers Ventilated.
	No.	No.	miles.	feet.	miles.
1908	52	260	23.59	.....	.....
1909	228	1,140	23.67	183	11.45
1910	661	3,305	29.50	183	17.28
1911	1,465	7,325	29.91	285	17.68

PARKS AND RECREATION RESERVES.

It has always been the policy of the State to provide the residents of incorporated towns with parks and reserves for public recreation, and the city of Sydney contains within its boundaries an extent of parks, squares, and public gardens affording favourable comparison with the great cities of the world. The most important are—Moore Park, where about 380 acres are available for public recreation, including the Association Cricket Ground, the Royal Agricultural Society's Ground, and the Zoological Gardens; the Botanic Gardens and Garden Palace Grounds, 60 acres, with the adjoining Domain, 90 acres, ideally situated on the shores of the Harbour, and Hyde Park, 40 acres, in the centre of the city. The total area covered is 679 acres, or 20 per cent. of the whole of the city proper. This does not include the Centennial Park, 552 acres in extent, situated on the outskirts of the city, formerly reserved for the water supply, but now used for recreation by the inhabitants of Sydney. This magnificent recreation ground has been cleared, planted, and laid out with walks and drives, so that it is a favourite resort of the citizens.

The suburban municipalities are also well served, as they contain, including the Centennial Park, about 3,826 acres of public parks and reserves, or about 4 per cent. of their aggregate area, dedicated to, and in some cases purchased for, the people by the Government.

In addition to these parks and reserves, there was dedicated to the people, in December, 1879, a large area of land, situated about 16 miles south of the metropolis, and accessible by railway. This estate, now known as the National Park, with the additions subsequently made in 1880 and 1883, contains a total area of 33,719 acres, surrounding the picturesque bay of Port Hacking, and extending in a southerly direction towards the mountainous district of Illawarra. It is covered with magnificent virgin forests; the scenery is charming, and its beauties attract thousands of visitors.

Another large tract of land, designated Kuring-gai Chase, was dedicated in December, 1894, for public use. The area of the Chase is 35,300 acres, and contains portions of the parishes of Broken Bay, Cowan, Gordon, and South Colah. This park lies about 10 miles north of Sydney, and is accessible by railway at various points, or by water *viâ* the Hawkesbury River, several of whose creeks, notably Cowan Creek, intersect it.

In 1905 an area of 248 acres was proclaimed as a recreation ground at Kurnell, on the southern headland of Botany Bay, a spot famous as the landing-place of Captain Cook; and the Parramatta Park (252 acres) although outside the metropolis, may be mentioned on account of its historic interest.

In country districts, reserves have been proclaimed as temporary commons, and considerable areas have been dedicated from time to time as permanent commons attached to inland townships, which are otherwise well provided with parks and reserves within their boundaries.

A State Nursery is maintained at Campbelltown, from which plants, trees, and shrubs are distributed for public purposes.

Under the Public Parks Act the Governor may appoint trustees of any lands proclaimed for the purposes of public recreation, convenience, health, or enjoyment. The trustees are empowered to frame by-laws for the protection of shrubs, trees, &c., upon the land vested in them, and to regulate the use and enjoyment of such land by the public.

APPENDIX.

SINCE the chapters of the Official Year Book for 1911 went to press, the following additional information has become available :—

POPULATION.

The figures derived from the census returns show the population of New South Wales at 2nd April, 1911, classified according to length of residence in Australia, viz. :—

Length of Residence in Australia.		Number of Persons.		
		Males.	Females.	Total.
Years.	No.	No.	No.	No.
0—4	31,686	15,190	46,876	
5—9	6,724	3,147	9,871	
10—14	7,142	3,265	10,407	
15—19	7,610	4,597	12,207	
20—24	18,856	12,417	31,273	
25—29	26,943	17,545	44,488	
30—34	17,030	9,926	26,956	
35—39	7,043	3,820	10,863	
40—44	4,954	3,112	8,066	
45—49	6,766	4,901	11,667	
50—54	7,393	6,038	13,431	
55—59	7,081	6,182	13,263	
60—64	1,953	1,990	3,943	
65—69	754	820	1,574	
70—74	919	923	1,842	
75 and over	143	196	339	
Unspecified	12,965	9,484	22,449	
Australian born	691,736	685,483	1,377,219	
Total	857,698	789,036	1,646,734	

The figures are exclusive of the Federal Capital territory, the population of which was 1,714, of whom 992 were males and 722 females. Full-blooded aboriginals, numbering 1,152 males and 860 females, are excluded from the table.

MOVEMENT OF POPULATION.

The following figures show the movement of population during 1911 :—

				Males.	Females.	Total.
Arrivals—						
By Sea	...	...	...	92,269	49,398	141,667
By Land	...	...	...	134,740	66,916	201,656
Total	...	...	...	227,009	116,314	343,323
Departures—						
By Sea	...	...	...	75,283	41,869	117,152
By Land	...	...	...	133,669	67,640	201,309
Total	...	...	...	208,952	109,509	318,461
Net increase of Arrivals over Departures				18,057	6,805	24,86

IMMIGRATION.

The recorded State assisted immigration to New South Wales during 1911 was as follows :—

	Males.	Females.	Total.
Nominated Immigrants	3,647	3,279	6,926
Selected „	2,233	763	2,996
Total	5,880	4,042	9,922

VITAL STATISTICS.

For 1911 the marriages numbered 15,267, as against 14,294 for 1910. The recorded births were : Males, 24,508 ; females, 23,169. Deaths numbered 10,004 of males, and 7,175 of females, the excess of births over deaths being 30,498, representing 18·35 per 1,000 of population, which, as can be seen from the figures quoted in the chapter relating to Population and Vital Statistics, is the highest rate recorded in the last ten years.

The population of the State at the 31st December, 1911, was estimated at 1,693,374 persons, viz. : 885,736 males and 807,638 females.

EDUCATION.

The extent to which the people of this State are educated is shown in the following figures, derived from the Census of 1911 :—

	Males.	Females.	Total.
English Speaking—			
Read and write	696,258	645,022	1,341,280
Read only	2,565	3,140	5,705
Foreign Language—			
Read and write	5,889	650	6,539
Read only	497	61	558
Cannot read	134,215	123,808	258,023
Not stated	18,274	16,355	34,629
Total	857,698	789,036	1,646,734

As regards those who cannot read, classification according to age shows the following, viz. :—

Age.	Males.	Females.	Total.
0—4	102,003	98,863	200,866
5—9	16,612	14,944	31,556
10—14	605	440	1,045
15—19	641	338	979
20 and upwards	13,934	8,922	22,856
Unspecified	420	301	721
Total	134,215	123,808	258,023

SOCIAL CONDITION.

At the census of 1911, the numbers and ages of blind persons and of deaf mutes showed as follows :—

Age.	Blind.			Deaf Mutes.		
	Males.	Females.	Total.	Males.	Females.	Total.
0—4	4	4	8	8	8	16
5—9	12	6	18	34	25	59
10—14	11*	13*	24	54*	57*	111
15—19	18	16	34	35	29	64
20—24	13	12	25	36	29	65
25—29	18	20	38	34	26	60
30—34	20	11	31	24	30	54
35—39	27	12	39	35	22	57
40—44	32	19	51	14	22	36
45—49	36	22	58	19	13	32
50—54	53	21	74	13	15	28
55—59	36	26	62	8	6	14
60—64	56	26	82	11	7	18
65—69	45	43	88	2	9	11
70—74	71	53	124	1	4	5
75 and over ...	136	110	246	1	3	4
Unspecified ...	3	6	9	1	5	6
Total... ..	591	420	1,011	330	310	640

* One blind deaf mute.

SHIPPING AND COMMERCE.

Following are the Shipping Statistics for all New South Wales ports for 1911 :—

	Vessels.	Tonnage.
Entered	3,127	6,822,135
Cleared	3,146	6,833,782

As between steam and sailing vessels, the tonnage was distributed as follows :—

	Steam.	Sailing.
Tonnage Entered	6,427,442	394,693
„ Cleared	6,424,865	408,917

At the port of Sydney the shipping entered numbered 2,408 steam, and 168 sailing vessels from overseas and interstate ports, and 6,138 steam and 502 sailing vessels from State coastal ports, the aggregate tonnage being 7,769,040, viz. :—

6,062,744 from overseas and interstate.
1,706,296 from State coastal ports.

The value of the direct overseas trade of New South Wales for 1911 is shown in the following figures :—

Direct overseas Imports	£27,343,428
„ Exports	32,161,404

PRODUCTION.

Preliminary Wheat Production Statistics of New South Wales are as follows for the 1911-12 season:—

Area under wheat for grain	...	...	...	...	2,380,733 acres.
Total yield of wheat	...	...	...	...	25,116,746 bushels.
Average	...	...	...	...	10·55 bushels per acre.

The mineral production for 1911 included 181,121 oz. of gold (fine), valued at £769,353; 1,767,496 oz. of silver (fine), valued at £177,095; 338,469 tons of silver-lead, ore, concentrates, &c., valued at £2,265,669; zinc spelter and concentrates, 516,378 tons, valued at £1,414,980; copper matte, ingots, and ore, 12,100 tons, valued at £590,102; iron, 36,354 tons, valued at £145,416; coal, 8,691,604 tons, valued at £3,167,165; and coke, 264,687 tons, valued at £184,337.

The aggregate value of the mineral output of the State for 1911 was £9,409,519, being £954,349 in excess of the previous year's output. The miners employed numbered 37,017.

AREA SUITABLE FOR WHEAT-GROWING.

On the map attached to this issue of the "Official Year Book" are shown the wheat experience lines, as determined in 1904 and in 1912, and the western boundary of the area over which the average rainfall is not less than 10 inches during the wheat-growing period—April to October inclusive.

Considerable improvement has been manifested during recent years in the methods of wheat culture. The old system has been altered gradually to accord with modern ideas, and the adoption of scientific methods has enabled farmers—especially in the districts of scanty rainfall—to secure profitable returns with a precipitation much less than that required formerly. It is not surprising, therefore, that the boundary of successful wheat production, as laid down in 1904, has been extended further westward.

Since 1904 the area on which wheat can be grown profitably has been extended very considerably, especially in the Riverina division, where the spring rainfall is more suitable than on the north-western plain for filling and maturing the grain. It is estimated that the wheat belt has been increased by about 13,430,000 acres, and this has been made possible by the adoption of scientific methods of cultivation. In determining the present wheat experience line, due consideration has been given to low yields attributable to bad farming and other preventable causes. This is a very necessary precaution, as the average wheat yields for the various districts do not always accurately disclose the possibilities of the districts. Notwithstanding the improvement made during the last few years in cultural methods generally, it is still unfortunately the case that the majority of the farmers do not obtain from their land anything like the results which are possible under good treatment. The conservation of moisture by fallowing and subsequent cultivation has not received sufficient attention, and the use of artificial manures should be much more general.

It must not be concluded, however, that the wheat line as now laid down will remain stationary. There are still large areas, especially in northern and western Riverina, admirably suited to wheat production. With the advance of settlement, the subdivision of large estates, and the extension of railway communication, there is every reason to believe that the area now known as the wheat belt will be extended considerably in the early future, provided the farmers are prepared to adopt the latest approved methods of cultivation.

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